The Function of the Shadow Banking Sector in the Chinese Financial System
A systemic analysis of China's Third Financial Sector

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Dr. Eric Schmidt
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I dedicate this thesis to the love of my life, Maja Oruba, and my best friend Keno, our son.

List of Abbreviations

ABC	*Agricultural Bank of China*
ADB	*Asian Development Bank*
AIC	*advanced industrialised country*
BJ	*Beijing*
BOC	*Bank of China*
BoCom	*Bank of Communication*
CBRC	*Chinese Banking Regulation Commission*
CCB	*city commercial bank*
CCB	*China Construction Bank*
CCP	*Chinese Communist Party*
CNY	*Chinese Yuan (Chinese domestic Currency)*
CSRC	*China Securities Regulatory Commission*
ECB	*European Central bank*
FSB	*G20 Financial Stability Board*
G20	*Group of 20*
GDP	*Gross Domestic Product*
GRP	*Gross Regional Product*
HKSE	*Hong Kong Stock Exchange*
Huijin	*Central Huijin Investment Company*
ICBC	*Industry and Commerce Bank of China*
IMF	*International Monetary Fund*
JSCB	*joint-stock commercial bank*
MCC	*Microcredit Companie*
MoF	*Ministry of Finance*
NBFI	*non-bank financial institution*
NJ	*Nanjing*
NPL	*non-performing loan*
OECD	*Organisation for Economic Cooperation and Development*
p.a.	*per annum (annually)*
P2P	*Peer-to-Peer*
PBOC	*People's Bank of China*
POE	*privately owned enterprise*
PPP	*Purchase Power Parity*
PRC	*People's Republic of China*
RCC	*Rural Credit Cooperative*
RMB	*Reminbi (Chinese domestic currency)*
ROSCA	*Rotating Savings and Credit Association*
SME	*small- and medium-sized enterprise*
SOCB	*state-owned commercial bank*
SOE	*state-owned enterprise*
SSE	*Shanghai Stock Exchange*

SZSE	*Shenzhen Stock Exchange*
VC	*Venture Capital*
WMC	*Wealth Management Company*
WMP	*Wealth Management Product*
WTO	*World Trade Organisation*
LGVC	*Local Government Financing Vehicle*

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Foreword

Following the immensely insightful and encouraging comments during my viva, I was left with a conundrum. This work was accepted without changes for a PhD Chinese Studies from King's College London. The two examiners made it clear from the beginning what they thought of this work and left me with a thesis they deemed sufficient to allow me to be awarded a PhD. As highlighted in my acknowledgements they made my viva a wholly pleasant experience.

There are some points I would like to highlight in this foreword without changing the actual content of this thesis to address the criticism that some of my examiners have expressed. I address these points in my foreword, because I do not want to change the actual work for which I have been awarded my PhD. As any intellectual work, this thesis has its strength and its weaknesses. As for anything in life, one has to be able to understand and acknowledge these two.

Dr. Dic Lo highlighted that this work has focused on financial systems design theory to analyse the Chinese financial system but that there are others, which might be equally capable of being used as an analytical prism. This point is highly valid and does provide a challenge. Yet I hope that Chapter Three will be able to convince the reader of why I chose this theory in particular. To anyone, who seek an all-encompassing answer to the theoretical foundation of the financial system of PR China and the role of shadow banking in particular, please kindly note that this work only provides an answer using one school of thought. No work on China can ever truly answer all questions, which you may have.

My thesis provides an analysis of the function of the shadow banking sector in Nanjing and Beijing in the early 2010s. In this it provides a way to understand an often misunderstood sector through the functions it provides. If you are reading this, I encourage you to get in touch and discus your thoughts.

Introduction

When we think about economic development, the impact of the financial system is rarely the first thing that comes to mind. That is not to say, that development economics does not appreciate the contribution that the financial system makes to development. The importance of it however is not contested. Lucas (1988) for example sees the role of the financial system in economic development as widely overstated. Robinson (1952) put it more bluntly when he said '*where enterprise leads, finance follows*'. In recent years the view of a positive impact of the *finance-growth-nexus*, the relationship between economic development and strong financial institutions, has gained wide prominence (e.g. Haber et al, 2008; Rühle, 1997; Barth et al, 2006; Cihak et al, 2012; Beck et al, 2005, Krahnen & Schmidt, 2004).

Most literature on the finance-growth-nexus has focused on the relationship between the formal sector of the financial system and its impact on economic growth. It has categorized financial systems using a *bank-based* vs. *market-based* dichotomy (e.g. Aybar & Lapavitsas, 2003; Chakraborty & Ray, 2006; Demirguc-Kunt & Levine, 1999; Demirguc-Kunt & Maksimovic, 2002; Levine, 2002). The *shadow-banking sector*, referring to all institutions that engage in bank-like activities without being regulated as a bank, has in the past often been overlooked or outright ignored in these discussions. It is the somewhat less attractive cousin of the formal banking system, considered to rarely provide anything positive and thus deserving to be marginalised. Its importance is less understood and analysed because it is assumed that it will wither away in time as the country moves along its development trajectory (e.g. Ayyagari et al, 2010;). Moreover, in recent years, it was precisely this part of the financial system that was quickly blamed for emergent financial instabilities. Certainly, following the 2008 financial crisis the potentially destabilizing qualities of certain parts of this sector should not be ignored.

Nevertheless, given the aforementioned positive role of the formal financial system in supporting economic growth, and in view of instabilities sometimes even faced by formal financial systems, there is good reason to believe that shadow banking has the potential to make its own meaningful positive contributions to economic growth and development. Scientific evidence on this *shadow banking sector*, the functions it provides and its impact on economic development is however still rare. Hence, the purpose of this study is to examine this issue in greater detail: What function does the shadow banking sector provide to the financial system in China?

It is important to highlight that shadow banking is a feature of all economies, whether developed or developing. It is certainly strong in developing economies in general and of urban areas in particular (Hsu, 2009: 4), yet it exists in every economy and in virtually any place. Especially with reference to China, it was precisely this sector that provided the much-needed capital to fuel private enterprise growth, as formal finance focused primarily on the financing of state-owned units. In 2009, loans from the formal banking sector to privately owned enterprises accounted for a meagre 3% of all bank loans (Yiu, 2013).

Existing theories claim that once a country has developed strong financial institutions, the shadow-banking sector will be marginalised and will no longer play an important role. It never fully disappears but it becomes marginalised. In China, however, the shadow-banking sector continues to be a very prominent feature of the economy. This is the case despite China being a strong emerging economy and one of the largest economies in the world, with a deep financial system. Thus far, nobody has attempted to understand the function provided by the shadow banking sector for the financial system. In fact, when we examine China, we can see that not to acknowledge the role, importance and power of the shadow-banking sector is both dangerously short-sighted and outright ignorant.

There have been intense debates recently on the extent to which shadow banking poses a threat to overall financial system stability in China. This view was swiftly contested by the Director-General of the Shanghai Office of the Chinese Banking Regulatory Commission (CBRC), Liao Min (2014), who said that the risk posed to the Chinese and the world economy was controllable. He even considered shadow-banking '*a necessity to feed China's investment that drives the economy, especially when the capital market offers less than 5 per cent of new lending and banks' lending capabilities are limited by capital and provisioning requirements'*. This debate highlights three important aspects. The first is that the financial community is split over the potential risks versus benefits emanating from the shadow-banking sector. Secondly, regulators emphasise the importance of shadow banks for the Chinese economy, as exemplified by the above statement of an important financial authority in China. Lastly, and most importantly for the present study, it demonstrates the need for an in-depth investigation into the way in which shadow banking is functioning and supplementing the formal financial sectors. The shadow-banking sector has to be understood from a macro-economic perspective, and existing theoretical frameworks need to be expanded to include its role in the economy. The shadow-banking sector comprises of a variety of different actors and institutions, some of which feed China's investment, while others have destabilising qualities.

It is not only the systemic role of shadow-banking that requires attention. The use and impact of shadow banking on the enterprise level is also important. Private sector use of shadow banking in China is widespread, with Tsai (2002) arguing that over 70% had participated in one way or another. While this clearly shows that shadow banking plays an important role in the Chinese financial system, the impact of using services provided by the shadow-banking sector on firm performance is highly contested. On the one hand, Ayyagari et al (2010) argue that the use of formal finance rather than informal finance had positively affected firm growth. They argue that relying on formal finance allows enterprises to grow faster, incurring higher reinvestment rates while experiencing at least the same productivity growth as those who rely on informal finance (Ayyagari et al, 2010: 3051). Yiu et al (2013) argue on the other hand that the use of shadow banking is positively related to private firm performance in China. They stress that local networks provide better monitoring capabilities that allow debtors to pay closer attention to their creditors, which helps in overcoming the *asymmetry of information*[1] between the two (Yiu et al., 2013: 836).

This research project examines the properties and characteristics of the shadow-banking sector in China, assessing the role it has had in promoting economic development and the overall functions it provides to the financial system. The aim is to provide a systemic account of the function of the shadow-banking sector in China. Although a shadow-banking sector exists in many countries throughout the world, its omnipresence and wide-spread use amongst ordinary citizens and entrepreneurs in China presents us with an interesting case. I am going to examine to what extent the shadow-banking sector has to be understood systemically as a component of the Chinese financial system and not as a general rival to the formal financial system.

Financial systems design theory, a theoretical framework commonly used to map financial systems, in its current form does not account for the existence of the shadow-banking sector and the relationship with other sectors of the financial system. My research and analysis in this study aims at shedding light on the extent to which this is a serious shortcoming of the theory. My key argument is that the shadow-banking sector's continuous existence and evolvement is due to its important supplementary role in economic

[1] The asymmetry of information exists, because they borrower has access to the most accurate information on her or his financial situation. The lender can only rely on external information on the borrower's creditworthiness.

development next to the formal sector. Most importantly, shadow banks contribute to fulfilling certain credit needs of private enterprises that the formal sector do not provide.

This study will consist of seven chapters. Following this introduction, Chapter One will introduce *financial systems design theory* as the theoretical framework for this study, and will discuss the difference between a bank-based and a market-based financial system. It will further provide a literature review of key concepts, such as the difference between the financial sectors and the financial system. It will discus the merits of bank-based vis-à-vis market-based financial systems. Understanding these concepts will allow us to comprehend the analytical tools for an analysis of the Chinese financial system, which will follow in subsequent chapters. Lastly, this chapter will conclude with a discussion of which, if any, of these financial systems are better for the development of an economy.

Chapter Two will discuss the research design and the methodology used for this research. This study has adopted a mixed-methods approach, using both qualitative and quantitative sources. Through my empirical fieldwork, I have obtained both interview and survey data. The methodology chapter will provide a comprehensive overview over the the sample group and their recruitment. It will further discuss in detail the questions used for this study and how the data was analysed. In addition, it will also provide an overview of issues, which were encountered in the course of the research. A full list of interview and survey questions can be found in Appendix I.

Chapter Three uses financial systems design theory to produce a complex analysis of the financial system of the People's Republic of China. I will use financial systems design theory to categorise the Chinese financial system as a predominantly bank-based financial system. The chapter provides a historical overview of the development of the Chinese banking sector and its regulatory environment since 1978, explaining evolution of banking supervision and regulatory authorities such as the *People's Bank of China* (PBOC), the Chinese central bank, and the *Chinese Banking Regulation Commission* (CBRC), and analysing the emergence of different forms of commercial banking in China. Issues in corporate governance in China's financial system are discussed in this context. The chapter will further analyse the country's financial markets and discus in greater detail why they have not been able to effectively challenge the role of banks within the system or provide a valid alternative for those, who need capital to fund the country's economic growth. This chapter will conclude that although financial systems design theory has been able to provide a thorough understanding of most financial systems around the world, it falls short of providing the tools of analysis for the Chinese financial system. China's financial system is largely bank-based, yet not all banks are engaged in effective credit intermediation, which is their core and most important task.

Chapter Four will engage in an analysis of the shadow-banking sector in China. It will first discus different definitions of shadow banking. I will further discus, why this sector is important and an understanding of it is paramount for any analysis of the Chinese financial system. This chapter will draw on existing literature as well as some of the data gathered through my empirical fieldwork. It will perform an institutional analysis, which identifies key institutions in the sector. The chapter will then further critically examine the different ways in which literature has grouped and discussed shadow banking institutions, namely as legal, quasi-legal and illegal institutions. It will further introduce a functional perspective on this sector[2]. I will provide a discussion on why it is better to understand shadow banks according to the functions they provide and not according to their formal or legal status. It will conclude that the shadow-banking sector is an integral part of the Chinese financial system and despite

[2] Chapter One will outline different approaches for the analysis of financial systems. It will discuss in greater detail, why a functional approach was chosen.

of the dangers emanating from certain institutions within it, it has provided a valuable function for the system overall. Following the conclusion, this chapter will present the key hypothesis: *the supplemented financial system*. If the formal sectors of a financial system do not provide the functions, which economic actors desire and require, the shadow banking sector will provide a supplementary function.

Chapter Five draws on my own empirical fieldwork and tests this hypothesis by applying it to the local financial system in Nanjing. Drawing on in-depth interviews, this chapter will analyse the local shadow banking sector from an institutional and functional perspective. Through my analysis of interview data, I will identify the key institutions within the local shadow banking sector in the city. The functional analysis will provide a new way of grouping existing institutions according to the function they provide: access to finance, alternatives to bank deposits, services to the formal financial sectors and services to local governments. This chapter will conclude, that examining the function rather than the legal status of a shadow bank allows us a better and more nuanced understanding of the sector as a whole.

Chapter Six draws on my empirical quantitative fieldwork in Beijing. Using data of a survey conducted amongst the capital's entrepreneurs, this chapter will seek to triangulate some of the findings of my qualitative fieldwork. Its institutional analysis will focus on mapping out the different institutions, which make up the shadow banking sector in Beijing. It will further compare and contrast if entrepreneurs use shadow banks, because they are readily accessible or whether they are the preferred source of finance. In order to ascertain the function of the sector in Beijing, the survey data is analysed to assess shadow banking's impact on access to finance. The chapter will conclude that all entrepreneurs in the sample had used shadow banking. It will also conclude that although some entrepreneurs have access to bank finance in Beijing capital, many are still driven to the shadow banking sector despite preferring other forms of finance.

Chapter Seven will summarises the findings of this study and relates them back to the central aspects of this study's title: the function of the shadow banking sector in the Chinese financial system. The rigid loan procedures of Chinese commercial banks as well as the corporate governance of the large SOCBs have shaped the need for a supplementary shadow-banking sector. Financial markets, both by design and by policy, have been unable to change the general structure of the financial system and have not been able to address the shortages of finance for the majority of privately-owned enterprises. Born out of the need for additional credit intermediation, those with excess funds and those in need of extra finance turn to another sector in the financial system. This study will conclude with an extension of the existing financial systems design theory. While the bank-based vs. market-based dichotomy does allow us to discuss ideal types of financial systems design, an economy with a heavily regulated and state dominated financial system and a strong, vibrant, and growing private sector, will develop alternative ways for credit intermediation: *a strong shadow-banking sector*. Therefore, we need to speak of a supplemented bank-based financial system, when we talk about China.

Chapter 1: Financial System Design Theory

Existing theories usually classify financial systems along a binary trajectory of *bank-based* and *market-based* financial systems. This dissertation will use financial systems design theory as a tool for an initial analysis of the Chinese financial system. Does China have a bank-based or a market-based financial system and are the two sectors performing the function, which they are ought to perform? Before this study can engage in a meaningful analysis of the country's financial system, we have to define and understand some key concepts first. This chapter will therefore start with a concrete definition of what we mean by *financial sector* and *financial system.* It will further highlight, how the literature sees their respective functions for the economy as a whole. I will then discus four distinct approaches for understanding and analysis financial systems and highlight why the functional and the institutional approach are the best approaches to understanding the Chinese financial system. Following that I will present the theoretical framework for financial systems design theory. This section will draw on existing literature and how it defines the two ideal types. This chapter will conclude with a discussion of literature on the question if any of these two ideal-types are better at promoting economic growth.

1.1 The Financial Sector and the Financial System

As the terms *financial system* and *financial sector* will be used throughout this study, we have to provide a concise and concrete definition for them. The *financial system* includes all actors and institutions in the financial sector as well as their interactions with the rest of the economy (Schmidt and Tyrell, 2004; Boot and Thakor, 1997). A *financial sector* is part of the entire *financial system* and at the core it offers and provides financial services to other sectors, e.g. the primary, secondary or tertiary sector of the economy (Schmidt and Tyrell, 2004). It consists of a range of different formal institutions; whose business it is to provide financial services to other sectors. In this chapter, I focus on two broad financial sectors, the banking sector and the financial markets. These are two core financial sectors of the economy, as they provide essential financial services to other sectors. Their purpose is to gather excess capital from those who have accumulated it (*surplus-spending units*) and allocate it to those who need it (*deficit-spending units)*.

The financial system is the sum of interactions of all of the actors as illustrated in Figure 1. The banking sector and the financial markets are at the core of the system in the middle and provide financial services to both surplus-spending and deficit-spending units on each side. Buckle and Thompson (1998:4) highlight three important functions of a financial system. The first is that it acts as an intermediary between surplus and deficit units within an economy and channels excess funds to the most efficient use. The second is that it provides a payments mechanism, in that it provides a mechanism for settling balances using currencies across space and time. Lastly, it also provides other financial services, such as insurance and pensions.

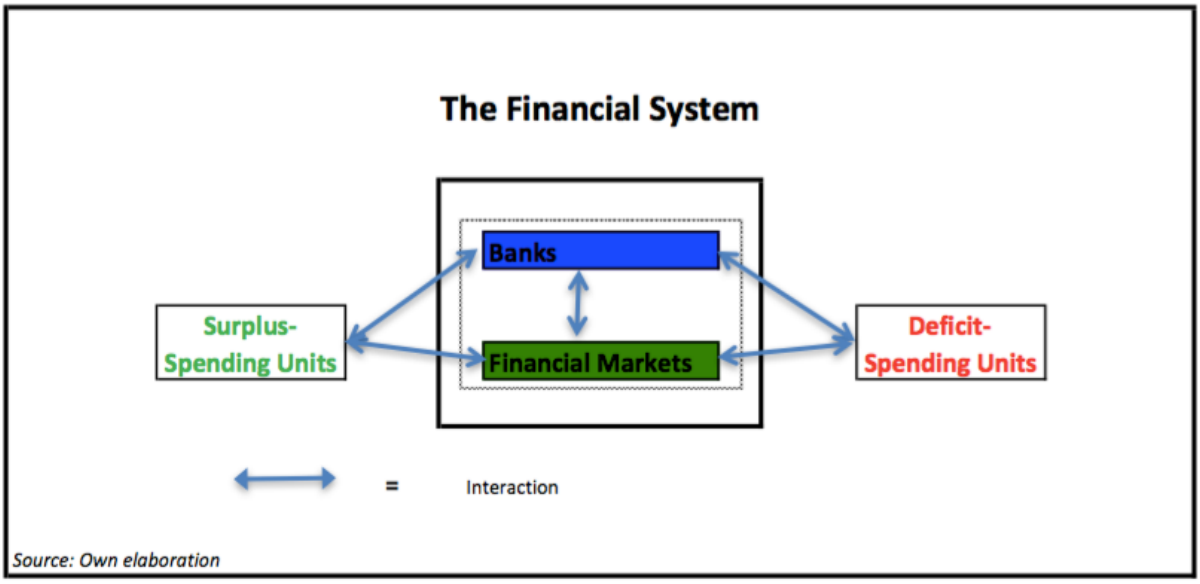

Diagram 1 - The Financial System

Farrell et al (2006: 25) identify seven crucial functions that a mature and well developed financial system serves. Like Buckle and Thompson, they see the mobilisation of savings and allocation of capital from savers to users as the most crucial function, and they also highlight that it provides an effective payments system. In addition, they argue, a well-developed financial system further provides price signals and information about the uses of capital, and it creates financial vehicles that enable trading and disaggregation of risk. It provides oversights over borrowers for investors. Lastly it improves incentives for companies to operate efficiently. Looking at the financial system in this way provides us with a more holistic approach to understanding how the financial sector interacts with the rest of the economy. Cihak et al (2012: 5) argue that the make up of the financial system has a direct impact on the allocation of savings within an economy. A well-developed financial system with strong formal financial institutions should efficiently allocate funds to its most efficient use.

Barth et al (2006: 8) see the financial institutions, which make up the core of the financial system, as part of a wider social fabric that binds a society together. The point is especially valid in the case of China. As we will see in later sections of this dissertation, the social network element, the concept of *Guanxi*, is omnipresent in China and very much interlinked with the financial system. Institutions within the shadow-banking sector and the informal segments of this sector in particular often use this social fabric to raise capital, provide an enforcement mechanism and also to find efficient uses for surplus capital.

1.2 The Four Analytical Approaches for Financial Systems

There are four distinct approaches for analysing financial systems (Schmidt and Tyrell, 2004). The first, the *institutional approach*, focuses on existing formal financial institutions and the central bank as unit of analysis. This approach tends to provide a comprehensive overview of various banks, insurance companies, investment and pension funds as well as financial markets. It tends to be focused on how these different institutions interact within the financial system. Buckle and Thompson (1998) provide such a study for the British financial system. While it provides a very detailed account, this approach can be criticised for being descriptive rather than analytical (Schmidt and Tyrell, 2004). Guo and Xia (2014) further argue, that this approach sees institutions as given, static entities, which ought to be supported by public policy. This approach can therefore not account of why these institutions may change over time (Merton, 1990). This may be problematic as it does not provide an account of whether these institutions are effectively providing the functions that are necessary to fulfil the financial needs of an economy.

The second approach, the *intermediation approach*, focuses on the role of financial intermediaries, who facilitate the exchange of capital between surplus-spending and deficit-spending units. Here, financial intermediaries provide a range of functions: they can provide liquidity, compensate for a mismatch of maturities and amounts, and due to their role as delegated monitors, they tend to have a better understanding in assessing the economic potential of enterprises (Schmidt and Tyrell, 2004). This approach emphasises the role of the financial sector as an intermediary between surplus-spending and deficit-spending units and looks at the role that financial intermediaries, i.e. banks and non-bank financial institutions (NBFIs), play in this process (Gurley and Shaw, 1960). This approach already provides us with a more extensive and inclusive framework for analysis. It aims to put the role of credit intermediation at the centre. On the other hand, it too suffers from the same shortcoming as the institutional approach: it displays a form of selection bias. Although we may include some aspects of the financial markets in this analysis, it focuses mainly on financial intermediaries. In this it ignores, for example, that the role of banks can change from that of a classical intermediary to assisting access to financial markets and designing financial products for financial markets (Allen and Santomero, 2001). As Schmidt and Tyrell (2004) ultimately point out, the problem of this approach is that it is stuck in narrative that measures how ‘good’ a financial system is by degree of which banks provide credit intermediation. Thus it only focuses on two functions of the financial system, intermediation and transformation. As Chapter Three analyses and discusses in much greater detail and complexity, the banking sector in China is large comparatively to the financial markets. One might therefore be inclined to think, that this approach is clearly the ideal approach for an in-depth analysis of the country's financial system. However, focusing on just a few intermediaries in both the formal and the shadow-banking sector bears the risk of ignoring other key actors. For example, if we would solely focus of formal NBFIs, we might ignore informal NBFIs as well as mezzanine capital, a form of equity finance, which it itself is not a clear case of financial intermediation.

Merton (1990) developed a more holistic approach: the *functional approach*. Rather than seeing the institutions of a financial system as given, this approach places at the centre of analysis the functions that a financial system provides. The core of this approach is that financial functions are much more stable than institutions (Guo and Xia, 2014). Institutions evolve over time to fulfil certain functions needed in the economy. We could argue that the underlying functions remain the same across time and space but are simply provided by different institutions. The relevant literature identifies five core functions (Schmidt and Tyrell, 2004). The core function of any financial system is the ability to transfer resources through time as well as across regions and industries. A financial system further ought to provide a payments system to assist the trade of commodities, services and financial claims. It has to ensure that resources can be pooled and that large indivisible enterprises can be subdivided through the sale of equity on the financial markets. It has to provide a method for the management of uncertainty and risk control. The financial system should further provide price information on investments. Lastly, it should provide a method to tackle the problems of asymmetric information. As the borrower has perfect knowledge of their business and financial situation and the lender only has imperfect knowledge, there is an asymmetric distribution of information. One of the functions of a financial system is to assist minimising this, e.g. by collecting information through financial institutions or through pricing signals in financial markets. The functional approach provides more scope for analysis, because it is not focused on just two functions of the financial system. It further does not put particular emphasis on any particular institution or set of institutions. The starting point for an analysis here is to describe and understand how the functions are performed by different elements within a given system (Merton and Brodie, 1995). Nevertheless, the approach has not been without criticism. Schmidt and Tyrell (2004) highlight for example that this approach treats different functions as potentially separable. This assumption may be wrong, because an institution that provides a given selection of these functions might be more efficient and thus increase the performance of a financial system, than a financial institution that focuses on just one of them.

The fourth is the *systemic approach*, which describes and analyses a financial system in terms of the interrelations between the different elements that constitute it and uses this analyses to evaluate its performance (Schmidt and Tyrell, 2004). Analysing the interactions and interrelations of various institutions, the theoretical conclusions that often derive from this approach tend to indicate that there are few, probably only two efficient financial systems: a bank-based or a market-based financial system. This approach is allows us to classify financial systems along a binary structure of bank and capital-market-based financial systems, depending on the complementarity of institutions. This approach is certainly suitable for comparisons of different financial institutions, but has one major drawback: It does not account for what happens, if complementary institutions, i.e. banks and markets, are performing some of the functions that we ascribe to them but not others. It fails to address financial systems, which for example are bank-based but where banks do not provide the functions of a performing financial system. This approach is therefore clearly well-designed to analyse the financial systems of advanced industrialised countries (AICs), like Schmidt and Tyrell (2004) remarkably demonstrates. Nevertheless, for the purpose of this study, it is not suitable.

Two of these approaches will be used to analyse the structure of the Chinese financial system: the institutional approach and the functional approach. The former provides us with a good tool to outline the institutional landscape of a financial system. The latter provides us with a good prism, through which to understand the functions provided by different institutions within it. The latter is particular important to understand, which functions the current system provides and, more importantly, how.

1.3 The Two Ideal-types: Bank-based and Market-based financial systems

The level and degree of development of the financial system ultimately determines the rate at which resources are allocated to productive industries and firms (Wurgler, 2000: 188). As productive industries and firms are the most efficient users of resources, including capital, their development and progression will suffer if a financial system is not working effectively and efficiently. Beck et al (2005: 137) point out that an underdeveloped financial system can constrain a firm's ability to fund investment projects. A well-developed financial system on the other hand determines the extent to which the individual entrepreneur's skill and initiative, rather than their personal network, decide over their entrepreneurial fate (Cihak et al, 2012: 6). The financial system is the ultimate determinant for the effective allocation of financial resources to the most productive industries (Beck et al, 2005: 139). So how does the literature classify financial systems?

Indicators for a bank-sector development	Indicators for stock-market development
- Liquid Liabilities of Banks and Non-Bank Financial Intermediaries to GDP - Bank Assets/GDP - Claims of Deposit Money Banks on Private Sector/GDP - Claims of Other Financial Institutions on Private Sector/GDP	- Market Capitalization as a Share of GDP - Total Value Traded as a Share of GDP - Turnover Ratio

Source: Demirguc-Kunt & Levine, 1999

Table 1 - Indicators for Financial System Development

Theories of financial system design have generally identified two ideal types: a *bank-based* and a *market-based* financial system (Aybar & Lapavitsas, 2003; Chakraborty & Ray, 2006; Demirguc-Kunt & Levine, 1999; Demirguc-Kunt & Maksimovic, 2002; Levine, 2002). In their cross-country comparison of financial systems, Demirguc-Kunt and Levine (1999: 2), use the ratio of *bank sector development* relative to *stock market-development* to establish whether a financial system is predominantly bank- or market-based. They identify a range of indicators, through which they measure the sectors' development, which are compiled in Table 1. Depending on which of the two is more developed vis-à-vis the other, we speak of *bank-based financial systems* or *market-based financial systems.* It is important to emphasise, that these ideal-types and elements of banks and markets exist in any financial system.

1.3.1 Bank-based financial systems

In a *bank-based financial system*, the development of the banking sector is more advanced than that of the stock market development. We can use the indicators listed in Table 1 to measure one vis-à-vis the other. Bank-based systems tend to be more prevalent in countries with a civil law tradition (Ergungor, 2003). Allen and Gale (1999) have argued, that bank-based financial systems are more likely to exist in situations when technologies are well established and understood. In those cases, investments just need monitoring. For example, when an enterprise wishes to engage in cross-border trade of consumer goods, a bank can easily assess the risks of said enterprise. Banks do not have to put a price on a new technology or innovation, if a technology or concept has been proven and established. Off course, this provides no account of how a proven concept or technology was financed at its inception. What we can take from their argument is that banks are not necessarily well-equipped to assess new technologies and their potential.

As the name suggests, in a bank-based system banks play the integral role as financial intermediaries. They allocate and channel savings to productive uses of capital (Barth et al, 2006; Fama, 1980; Purda 2008). Surplus-spending units, those who have access to more financial capital that they are willing to spend, save their money in their bank accounts. Banks will reward their deposits with a moderate return in the form of interest payments. Deficit-spending units, those who do not have access to the amount of capital that they are willing to spend, on the other side seek financial capital from banks. Banks will use the deposits from one group to extend loans to the other group. As they charge the borrower higher interest rates than the lender, they will in turn make a profit. This is the most basic and simple illustration of the core business of any bank.

In addition to this very basic function, financial intermediaries perform a range of other functions: they provide liquidity, credit transformation, liquidity transformation, term-to-maturity transformations, and they have a better understanding/experience in assessing the economic potential of an enterprise (Schumpeter, 1939; Diamond, 1984; Krahnen and Schmidt, 2004; Guo and Xia, 2014). They provide liquidity by extending loans to economic actors. They provide credit transformation, by taking small deposits and extending large loans. They further provide liquidity transformation, by turning highly liquid assets, i.e. bank deposits, into less liquid assets, e.g. loans. They provide term-to-maturity transformation, by turning short-term deposits into long-term loans and other assets. They lastly have a better understanding and experience in assessing the economic potential of an enterprise, because they gather information on various industries and borrowers over time.

Bank financing often involves long-term relationships between the borrower and the lender. The literature often defines this as *relationship lending* (Barth et al, 2006; Beck et al, 2011; Berger & Udell, 1995; Chakraborty & Ray, 2006; Diamond, 1984; Hoshi et al, 1990a, 1990b; Leland and Pyle, 1977). Relationship lending refers to a type of financing, where the bank seeks to overcome the asymmetry of information through continuous, personalised and direct contact with enterprises and their stakeholders (Beck et al, 2011: 36). This asymmetry exists, because the debtor will always have more information about the actual state of his business than the creditor. An enterprise might be highly profitable according to its balance sheets, yet these sheets do not necessarily reflect all the information available on the business. For example, a large customer might have just cancelled an order or is not meeting their scheduled payments. By collecting information on the business and its entrepreneur over time, a bank can partly overcome this asymmetry of information and therefore make more effective and reliable lending decisions. It is one of the particular strengths of a bank-based financial system and forms a mutually beneficial cornerstone of the entire system. A borrower benefits from this long-term relationship, because the longer the relationship, the more likely he is to pay lower interest rates and less likely to pledge collateral (Berger and Udell, 1995). The creditor benefits from this long-term relationship most obviously by extracting profits over a long period of time but, more abstract, by collecting a wide array of information on the borrower, his business and his industry. All of this allows the creditor to overcome the asymmetry of information that naturally exists between a creditor and his debtor.

In theory, a bank-based financial system should foster the development of small and medium-sized enterprises (SME) (Aybar & Lapavitsas, 2003; Beck et al, 2011; Chong et al, 2013, Shen et al, 2009). For example, if an SME owner seeks to secure a loan for a modernisation of his production facilities, the bank is able to assess the likelihood of profitability of such a venture based on the information gathered through relationship lending. In return this allows businesses to pursue long-term growth strategies, as the capital commitment is likely to be long-term. For a creditor, lending to successful SMEs with long-term capital commitment allows for the long-term extraction of profits. The investment is less speculative and thus safer in the eyes of the creditor.

Purda (2008) further points out that in bank-based financial systems, banks often rely precisely on these relationships in negotiations with distressed borrowers, rather than legal and formal proceedings. If they fear that one of their debtors is running into financial difficulties, they tend to rely on their relationship with the debtor to renegotiate the terms of the loan, rather than pursuing their claim in court. In their study of credit-rating of enterprises in a bank-based vis-à-vis market based financial system, Aybar & Lapavitsas (2003) find that enterprises in the former tended to be perceived as less of a credit risk than the latter, because of this relationship.

This role assumed by banks is defined in the literature as being the '*delegated monitor*'. Delegated monitors acquire and process information about firms and their managers to make assumptions about their profitability (Berger and Udell, 1995; Chakraborty & Ray, 2006; Fama, 1985; Purda, 2008). The surplus-spending unit, rather than relying on their own wits and knowledge, leave the allocation of capital to intermediaries. They thereby delegate the monitoring of investments and channelled resources to someone else. With regards to the level of information a bank is privy to, Fama (1985: 36) stresses that bank loans can be considered '*inside debt*'. The creditor, the bank, has a legal agreement with the debtor, which includes access to otherwise not publicly available information about the enterprise. The bank might even participate in certain decision-making. This allows the bank to monitor their debtor carefully and identify any repayment problem at a very early stage. The nature of the debt, as a bank loan from one or a handful of institutions, also makes efforts to restructure these obligations far easier (Purda, 2008:1179).

Overall, the literature suggests that a bank-based financial system work especially well in the early stages of industrialisation (Rajan and Zingales, 2001). This is mainly due to the fact that in that developmental stage, industries are physical-asset intensive and legal systems tend to be less effective. Skill or idea-based industries are rare in this stage of development and therefore banks do not have to price new technologies. The case of China would support this, for the formal sectors of the Chinese financial system in its early stages of development, i.e. when it advanced its economic reforms in the early 1980s, were exclusively dominated by banks. On the other hand, there are cases of successful bank-based systems in advanced economies such as Japan and Germany. This would suggest that a bank-based financial system is also effective at channelling capital to its most efficient use even in later stages of development. Chakraborty and Ray (2006) also finds that economies benefit more from a bank-based financial system, if income distribution is a policy concern. This suggests that for developing countries with often unequal distribution of wealth, this system might provide more benefits for a larger group in society.

1.3.2 Market-based financial systems

In a *market-based financial system*, stock-market development is relatively higher than the development of the banking sector. Comparative studies have shown that market-based financial systems are more prevalent in countries with a common law tradition, for example in the United Kingdom or in the United States (Demirguc-Kunt and Levine, 1999; Ergungor, 2003). La Porta et al. (1997) adds that markets develop better in legal systems which provide adequate protection of minority shareholder interests. In countries following a common law tradition it is easier for minority shareholders to challenge management through courts. Aybar and Lapavitsas (2003: 33) argue that a market-based financial system is often the result of deregulation and financial liberalization. They further highlight that a market-based financial system is often shaped by existing soft and hard institutions. This includes the legal system but also other institutions.

Chakraborty and Ray (2006: 332) add that a market-based financial system is more likely to develop either if the cost of monitoring is too high for banks to become delegated monitors or if general agency problems are not severe. Agency problems are not severe in economies with high degrees of transparency or well-developed legal systems. The idea is that this will compel the agent to always act with the principal's best interest in mind. In these systems, the monitoring function is left to the market, which uses pricing signals to indicate a potential success of a business entity. Markets will efficiently and effectively examine information independently and therefore a market price will provide the best possible signal for potential success[3]. That is not to say that the markets are left to their own accords, without any oversight or regulation. There are rules that govern the workings of financial markets and all its actors. For example, listed companies are bound by law to publish an array of information. However, the monitoring of performance is left to the market via its pricing signal.

Allen and Gale (1999) find that market-based financial systems are needed when technologies are new and rapidly advancing. In these cases, banks will find it difficult to adequately price a new technology. Their internal structures are designed to analyse past information. It is therefore more desirable, in theory, to rely on the market's pricing signals. The information publicly available in those financial systems allows for a more appropriate assessment of the potential of new technologies. Rajan and Zingales (2001) add that because of this, market-based financial systems have a comparative advantage in financing industries with high levels of intangible assets. A bank will find it comparatively more difficult to price a new idea's or industry's potential, whereas the market does this via its price mechanism.

In addition to providing financial resources for new technologies, we can say that a market-based financial system allows easier access to large amounts of capital for large enterprises (Berger and Udell, 1995: 351). Scharfstein (1988) argues that the existence and mechanics of equity markets encourage sound corporate governance due to the ever-looming threat of a hostile takeover of under-performing firms. Poor management decisions, if not challenged by shareholders in the first place, will lead to a fall in the share price, which ultimately encourages competitors to attempt a hostile takeover. To what extent this is always true is a subject of vivid debate and the effects of the global financial crisis in 2008 would suggest that this does not always hold true.

[3] The author does not necessarily agree with this view or promoted the idea of an ever efficient market, but merely presents the standard argument for the natural efficiency of any market.

Rajan and Zingales (1998a, 2001) argue that market finance's price signal will guide investors to the best possible investment. The individual investor can use all the information available in the market to make an individual investment decision. There is no need for him to delegate the monitoring of his investment to an intermediary. However, in a market-based financial system the investor may choose to do so by buying financial products, e.g. funds. Here the investor delegates the monitoring to another entity.

As market-based financial systems rely on the historical inevitability of the victory of market forces, it is a very appealing system. Unlike banks, which rely on people and relationships between borrowers and lenders, the market will make independent decisions. Market forces know not one master, so in essence they should in the long-run guide investment to the most productive use. That is not say that manipulation or market failure cannot occur. Some would say that recent history, from the 2008 financial crisis to the recent Chinese stock-market turmoil indicate quite the opposite and highlight the potential volatility of markets. Nevertheless, in the long-run the actions of one actor in this system should have less of an impact on the collective decision, for the sum of actors will, in most cases, act rationally.

The main challenge for with market-based financial systems is that it relies on well-established institutions. There has to be a legal system, which is impartial and provides solid protection for the interests of minority shareholders. Ideally such a system should be based on common law; the same system, as in the two most advanced market-based financial systems in the world, the UK and the US. This is not to say that in the civil law tradition, minority shareholders' interests are not protected. As Ergungor (2003) analyses in his study of rights and regulations in the two systems, the issue is that not one of existence or absence of laws, but one of interpretations and the ability of the judiciary to interpret legal documents.

There is much more leeway for the judiciary to interpret legal texts in a common law system than in a civil law system. This means that shareholders have more opportunities to challenge the actions of a particular companies' management, which in turn means that said management is more careful with their decisions. Again, to what extent this always holds true is a subject of great debate and once more, critics of this argument would point towards the 2008 financial crisis to highlight that this sounds more like an idealistic daydream than solid reality. While it would be interesting to engage in a further debate regarding the power of the market to compel the management of listed companies to always act in the shareholders' interest, this would require and entirely new and complex research project.

What we can take from this line of argument is that market-based financial systems need a high degree of transparency. This might be one of the key issues of this system for many economies throughout the world (Rajan and Zingales, 2001). The virtual prerequisite of a well-established legal and thus supervisory regime for market-based financial systems is precisely one of the key problems for many countries and developing countries in particular. Tadesse (2000) argues therefore that a market-based financial system has great potential for growth if the financial system itself is well-developed. But if a market-based financial system is forced upon an underdeveloped economy, then the overall impact on the economy could be problematic.

An economy may start off with a bank-based financial system and as it develops, it can move towards a more market-based financial system. Empirical evidence seems to prove the point, as the US, still the largest economy in the world, operates under a market-based financial system. On the other hand, the East Asian Tigers, as well as some of the biggest and most successful economies in the World, e.g. Germany, have retained themselves as predominantly bank-based financial systems even though they have elements of a market-base system.

1.3.3 Bank-based vs. Market-based: Is one better than the other?

After reading about the two ideal-types, one question immediately comes to mind: Is one better than the other? Can we say that one system is better than the other or are these not more than theoretical ideal types? Are the delegated monitors with their relationship lending, i.e. banks, better at channelling capital to the most efficient use? Are markets, which know not one master and rely on transparency and the wide dissemination of information, better than banks?

Chakraborty and Ray (2006: 348) find in a global study comparing the two types of system, the bank-based systems have two key advantages: (1) they have higher levels of investment and GDP per capita, and (2) the system tends to provide more external finance to a higher number of entrepreneurs, which is likely to help manufacturing. On the flipside, we may argue that this is not necessarily evidence for a better financial system. Higher levels on investment as such can also indicate the existence of investment bubbles. Providing more external finance to a greater number of entrepreneurs could also just be a sign of the entrepreneur's inability to finance their undertaking through retained earnings or simply just mean that the financial system is over reliant on banks, because there are no developed financial markets or other sources of finance. So while these two key advantages might sound convincing at first, they themselves are not necessarily indicators that a bank-based system is necessarily better than a market-based financial system.

Levine (2002) highlights one major flaw in the existing research on this question. All research into whether one system is better than the other has in the past been largely centre around four countries, which all have similar long-term growth rates. Most research has traditionally focused on Germany and Japan as bank-based financial systems and the US and the UK as market-based financial systems. It concludes, that in essence there is no cross-country empirical support to argue that either one of the two systems is better or worse than the other. What matters rather than the financial system are the institutions, which govern it and the legal system, that individuals can use to enforce their claims and settle their disputes. Thus, more emphasis should be given to whether the financial system provides the functions it ought to rather than whether it is bank-based or market-based. The latter is not necessarily linked to economic growth.

Rajan and Zingales (1998) consider financial development as a whole as playing a major supportive role for economic growth. They define financial development of an economy by the ratio of domestic credit plus stock-market capitalization to GDP and sound and well-developed accounting standards. The former looks in a more holistic manner at the development of the financial system by combining domestic credit through financial intermediaries with stock-market capitalization and puts that into relation with the economic capabilities of a said economy. This allows for a view that is not focused on whether a financial system is bank-based or market-based but looks at whether the two financial sectors are well developed. Lastly, sound accounting standards are further evidence of a well functioning financial system, as they tend to provide a more transparent picture of businesses, regardless of whether they are publicly traded or reliant on bank finance.

In a wide-ranging study of credit risk and credit management, Purda (2008) has found significant differences between the two systems. The study looks at the credit risk across different financial systems and argues that due to the monitoring function of the banking sector, firms in a bank-based financial system are believed to pose lower risk to investors than firms in a market-based financial system. All of this is despite generally using higher proportions of debt. It further looks at the issue of debt and restructuring. Here it argues that the bank-based financial system has a clear advantage over the market-based financial system. As a bank finance is usually in form of a bank loan from one or a handful institutions, this allows for much easier restructuring. Rather than involving hundreds or thousands of individual investors in the market, the restructuring amongst one or a handful of creditors can be done more swiftly and efficiently.

Despite these findings, it is not possible to establish conclusively whether one or the other system is better for economic development. In fact, the majority of the literature establishes no significant difference in long-term growth rates between both types of financial system. Consequently, we cannot conclude if one is better than the other, only that they are different. What is important for the purpose of this dissertation is that the existing literature has used a bivariate distinction in an attempt to classify financial systems. While this certainly makes for interesting comparisons about the different economic structures that the systems produce, I seek to highlight in this study a specific problem resulting from this binary distinction between the two ideal-type systems – the fact that it does not take account of the shadow-banking sector. The purpose of this dissertation is to explore whether the existing framework needs to be expanded to include shadow-banking as a third financial sector, one that supplements the two formal financial sectors. By examining the Chinese financial system in particular, we seek to determine whether the *shadow-banking sector* should be included as a separate and distinct sector of the financial system.

1.4. Concluding Remarks

Financial systems design theory is a complex field. It deals not just with the interactions within financial institutions, but also with the complex network of interactions between financial institutions, the economy and the whole society. Its main contribution has been that we can broadly identify two ideal-types, that financial systems conform to. Its main flaw is that data suggests, that both systems create very similar results. If this is the case, why should we spend time on analysing them? My literature review has indicated that the institutions governing financial sectors matter. The literature also demonstrates that it is important to look beyond the binary distinction of financial systems. It is not enough to look at only two financial sectors and attempt to neatly classify any financial system according to whether it has strong banks or strong markets. What happens, if banks are not governed by individuals, who see effective credit intermediation as the the most crucial function that banks should provide? What happens if markets exist but they are not free from outside interference? These are questions to which financial systems design theory does not have answers. The data analysed for this study confirms that we need to look beyond banks and financial markets to truly have an understanding of the financial system in a country like the People's Republic of China.

Chapter 2: Methodology

Researching and analysing potentially sensitive topics such as shadow banking provided me with a complicated research task. Due to the complexity of shadow banking and the potential legal implications of being involved in it, how can research into the role of the shadow banking sector be conducted? What methodology is best to safely research both legal and illegal institutions and activities, as well as experiences with them?

This chapter will now firstly discus the research design adopted for this study. As Tressel (2003) notes in his research on informal finance, there is a lack of reliable quantitative data to study and analyse this particular form of shadow banking. Therefore, qualitative methods are much better suited to research informal finance. On the other hand, purely relying on qualitative methods might also pose a challenge, e.g. a selection bias. This chapter therefore seeks to discus the methodology adopted for this research project: a mixed-methods approach. I will discus the merits and potential issues surrounding different potential research methods and highlight the steps taken to overcome them by employing a mixed-methods approach.

This chapter will then provide an overview of the qualitative and quantitative methods used in this study. Each section will further include a description of potential issues, which arose throughout the research as well as the steps taken to potentially overcome them.

All research for this study was undertaken, during my time as a visiting researcher at the Renmin University of China between October 2014 and 2015. The King's College Research Ethics Office approved the research on April 2nd, 2014 under reference REP/13/14-58. The ethics clearance covers the entire project for the whole of the duration. Ethics clearance was amended following a feasibility test in May 2014 to include verbal consent for interviewees, as written consent was not feasible for the research at hand.

2.1. Research design

The Shadow banking sector, as Chapter 4 explores and discusses in great detail, includes a range of different institutions and actors. Some of these actors wear suits and operate legal, formally regulated enterprises. Others may operate informally, lending money amongst friends and family or might be engaged in illegal activities, e.g. usurious loans. This begets the question, how we can plan to understand the function this sector plays in the wider fabric that is the Chinese financial system? Researching and analysing the function played by this sectors requires a complex and well-developed research design.

Qualitative methods are often the seen as the preferred strategy to analyse "why" and "how" research questions, especially when the research focuses on contemporary phenomena (Kohlbacher, 2006). They allow for a detailed investigation of a certain phenomenon within its specific context (Hartley, 2004). Since qualitative methods deal with the interpretation of words in their meaning and context, it is open to criticism for bias. Beuving and de Vries (2015: 171) said that at times, some regard qualitative research '*as an art more than a craft*', i.e. somewhat inferior to other quantitative methods. My experiences discussing my research with my colleagues at Renmin University's School of Economics and Finance further underlined this scepticism, especially amongst financial economists. In the eyes of some, qualitative methods do not have a place in the study of financial systems.

In order to generate knowledge about the function of the shadow banking sector, qualitative methods provide the right arsenal of tools. If used correctly and the research is conducted properly, they allow us to analyse *pattern theory*, an interpretation end explanation of phenomena by fitting them within a wider theoretical pattern (Beuving and de Vries, 2015). This study uses qualitative data on the experiences with shadow banking in order to fit them within the wider theoretical pattern that is financial systems design theory. Qualitative research can take on various forms, but the most applicable to the central question of this study is the *qualitative interview*. Qualitative interviews allow us to see a research topic through the eyes of the interviewee (King, 2004). The purpose of these interviews is to collect descriptive evidence of the experiences of interviewees in order to interpret their meaning (Kvale, 1983). Interviews allow us researchers to gather an understanding of a phenomenon, which might be impossible to express in numbers or for which data is unreliable. For reasons, which go far beyond the limitations and scope of this research, official data in China is often criticized for its validity and reliability[4]. Hence other approaches are better suited than a pure quantitative analysis. For this study, qualitative methods are further ideal, because the function of the shadow banking sector is hard to express in numbers. In order to generate an understanding of the potential functions of this sector, it is vital for us to talk to those, to whom it provides these functions, and analyse their interview data.

In order for interviews to serve this purpose and produce high quality data, interviews must adhere to certain criteria. Merton and Kendall (1946) identified four criteria for a good interview. The first criterion is non-direction. The interviewee must be able to express what is on their mind, rather than what the interviewer wants to hear. The goal of the interview should be to see the research topic through the eyes of the interviewee (King, 2004). The second is specificity. There is little insight to be gathered on the question of shadow banking, if the interviewee tells me about her or his favourite recipe or sports team. It is thus vital that, even when asking open-ended questions, the interviewer keeps the interview's focus on a given topic. The third criterion is range. The interview should cover the widest range of aspects concerning the topic at hand in the time available for the interview. In this study, for example,

[4] For a more detailed discussion on the lack of reliability of Chinese investment data, see Liu et al (2016). For a discussion on the reliability of Chinese economic data in general, see Xu, Wang and Gao (2013). For a more general discussion on the problems of obtaining reliable quantitative data on shadow banking, see Tressel (2003).

it is important that the interview covers a wide range of functions of the shadow banking sector. For example, an entrepreneur might have experience in borrowing money from shadow banks, but might have also invested his or her own personal funds in another. Both experiences provide us with valid insights and data on the functions of the sector overall. The fourth and final criterion is depth and personal context. Covering a wide range alone is not insightful, if the trade-off is to sacrifice on depth or personal context. The goal of the interview is to see how the interviewee experiences things and not simply list the things that the interviewee experiences. To relate this criterion back to our research question, it is not only interesting to see, which shadow banks entrepreneurs use, but also understand how they feel about the services they provide vis-à-vis other shadow banks and the formal financial sectors. These four criteria were taken into account and met, when the fieldwork for this study was undertaken.

In addition to the quality of data, there are additional challenges associated with the wider research design and analysis of it. Bleich and Pekannen (2013) outline three distinct challenges associated with interview data and its analysis. The first is accuracy of reporting. When we analyse interview data, we might selectively include references or quotes, while not reporting their context adequately. This is a valid concern and criticism, for which there is only one possible solution: full transparency. In order to be more transparent in research and analysis, thereby strengthening the findings of one's research, is to include full transcripts of all interviews and make them available to readers. Transcripts are available from the author upon request. The second is the representativeness of the sample. This is a concern, which is often formulated by proponents of quantitative methods, who feel that studies should be based on a perfectly randomised sample. In the field of Chinese Studies, this concern is probably even more valid if research data is used to make broad claims about the whole of

China based on fieldwork conducted in one city. This concern is one, which is important to keep in mind, yet due to the limitations of this project, a fully randomised sample including every province of China would have not been feasible. Even within Nanjing, where only qualitative methods informed this research, a fully randomised sample would have not been possible, because interview partners were not easy to recruit. This is a limitation of both method and sample, which the author is aware of but had no opportunity to overcome it. The last potential problem, which might affect the analysis of interview data is the type and quality of the information obtained. In other words, can we trust what the interviewees have been telling us? Doubts about reliability are difficult, if not impossible, to truly overcome. We can only take at face value what interviewees have said. My analysis of interview data has hence sought to only make general statements, if several sources have relayed the same information to me. If only one source offered valuable insights, this is clearly marked as such.

In order to address and overcome the general problems associated with the analysis of interview data, I have taken certain measures. Firstly, transcripts are available upon request and a reference in the footnotes, where it is appropriate. The reader can therefore, if in doubt, see the quote or fact in its original context. Furthermore, in 3.2. this chapter will provide a full overview of the sample frame, including the response rate and type. As most of these interviewees were recruited through *snowballing*, I have further included a tree diagram of if and how the different interviewees are interconnected. This seeks to address some of the issues regarding the reliability and representativeness of my data. Lastly, I provide a full table of the format, length and location of the interview. All interviews used in the analysis were translated, recorded and transcribed to enhance the quality of my research data.

As Thøgersen (2006:111) points out, foreigners with knowledge of '*textbook Chinese run into language problems, as soon as they leave the protected world of educated informants.'*

Due to limitations of my language proficiency, all Chinese interviews were conducted with the aid of an interpreter. Apart from a few examples, e.g. Temple (2002), Fujii (2013) or Borchegevink (2003), not much has been written on the impact of interpreter on interviews. Fujii (2013) notes, that *direct interviews*, i.e. without the help on an interpreter, have clear advantages. First of all, they allow the interviewer to exercise better and more nuanced control over the interview process. They further allow the researcher to build better rapport with his research subject. All of this is said to enable a smoother and clearer interview, especially if the content of the interview is somewhat sensitive. Lastly, the translation and presence of the interpreter, might distort responses. All of these are valid points, which would make a direct interview without the aid of an interpreter the most desirable option.

Using an interpreter on the other hand can also have benefits. Thøgersen (2006) notes that, in the context of China especially, there are a great deal of benefits of using a local interpreter. Textbook Mandarin might allow a researcher to conduct interviews with party officials, but soon reaches its limitations outside of those circles. Local interpreters can help, if they are proficient in the local dialect. For this study's research, an interpreter was a necessity. I do not possess the necessary language skills to conduct interviews on the Chinese financial system in Mandarin. In order to ensure that the data gathered through my interviews was of the highest possible quality, I used an interpreter to improve interview conditions. I was aware of the issues described above and sought to alleviate them. In my dealings with my interviewees, I often made the first introduction in Mandarin myself, outlining my research project and my role as a researcher. I then kindly asked the interviewee if he objected to me switching to English and continuing with the help of my interpreter. Both of my interpreters were postgraduate students in international economics at the John Hopkins Centre in Nanjing.

This was particularly useful, because they also understood the context of both, questions and answers. As Fujii (2013) notes, the vocabulary used in academic research might be highly specialised, and words or ideas might not translate with ease across different languages. The latter was a particular problem, I encountered with this study. The literal translation of shadow banking into Chinese is 影子银行(Yǐngzi yínháng). This is the term, which is found in official documents and is also used in the academic context. During a discussion with my local interpreter, I discovered that for many in Nanjing, this actually referred to informal finance, rather than any type of shadow banking. Subsequently, we adopted the word 非银行(Fēi yínháng), which literally means non-bank financial institution (NBFI) and informed the interviewee that the scope of the research covered all aspects of shadow banking, including NBFIs. Without an interpreter, I would have fallen into the pitfall so vividly described by Thøgersen's quote above. Qualitative methods are well-suited for this research task for the reasons discussed so far. Despite some shortcomings, most of which can easily be alleviated if recognised and taken into consideration, they provide the best tools for this study.

In addition to the steps outlined above, I further sought to reduce the shortcomings of relying purely on qualitative methods by including some quantitative data and adopting a mixed-method approach. Greene et al (1989) outlines three distinct purposes for adopting a mixed-methods research design, which are relevant to this study: triangulation, complementarity, expansion. Triangulation allows us corroborate or dispute the findings of one method through another. Complementarity describes the use of both methods to measure and evaluate overlapping but distinct aspects of a phenomenon (Carcelli and Greene, 1993). Expansion refers to the extension of range and width of findings by applying different methods to a central research question. In order to utilise these three purposes, I decided to use an online survey aimed at entrepreneurs and financial executives of privately owned enterprises. As this survey was anonymous and could be taken in the privacy of the research subjects home, I expected subjects to be open and frank about their use of the shadow banking sector. As this removes any influence that an interviewer or interpreter might have on the research subject, I expected the data collected to be accurate and thought-enhancing, yet not as rich in detail as that provided by interviewees. In other words, the survey data would complement the interview data in valuable ways.

2.2 Qualitative Methods

The following section seeks to outline and describe the interview data used in this study. It will firstly highlight the methods used in collecting data, the sample frame as well as response rate and type. It will then discus the coding method employed on this study's data. Interview transcript are provided in the appendix of this study.

2.2.1 Sample Group, Recruitment and Response Rate

During my fieldwork in Nanjing and Beijing, I conducted a total of 46 interviews with entrepreneurs, key informants, finance experts and finance professional of all age groups, gender and socio-economic backgrounds. Due to the suspected function of shadow banking in the Chinese financial system, I identified three groups of stakeholders: entrepreneurs, finance professionals and academic key informants. I decided t to interview entrepreneurs, because they are likely to have been involved in shadow banking at some stage during their career. To determine the role, which the shadow banking sector plays in the Chinese financial system, it is best to seek information from those, who have come in contact with it. The same logic applies to anyone working in the formal financial sector. If shadow banking provides additional services to other economic actors within the financial system, then anyone working within the financial sector, e.g. loan officers in commercial banks, will have to possess some knowledge of the services they provide. It is vital for the research question to establish how these actors see their own activities in shaping the role of the shadow-banking sector. In the formal banking sector, I recruited loan officers and other finance professionals through personal and alumni networks. In the shadow banking sector, I sought to recruit actors in legal, quasi-legal and illegal subcategories. Lastly, I sough to recruit other key informants, e.g. academics or other leading experts on the Chinese financial system.

Out of the 46 interviewees, 22 interviewees agreed to be recorded. These recorded interviews form the interview data analysed in this study. The other 24 interviews, which were not recorded, were not explicitly included in the analysis. There were not included in order to overcome issues surrounding the accuracy of reporting as well as the quality of information obtained. Some of these interviewees turned out to have limited knowledge or involvement with the shadow banking sector in China. Others would simply outline and repeat the legal aspects of shadow banking, which put into question the quality of information provided by them. Lastly, as there was no transcript of these interviews, it was not possible to use them during coding and the subsequent analysis of interview data. There was simply no physical evidence of what they had told me and thus I could not use them as evidence in my analysis. The information did influence this research nonetheless, for the often highlighted or shaped aspects, which were subsequently brought up by me in other interviews. All recorded interviews were assigned a unique identifier in the format of:

(location)-(year)-(month)-(sequential number of interviews in that month)

Interviews conducted in Beijing had the location prefix BJ. Interviews conducted in Nanjing had the location prefix NJ. An interview conducted in Shanghai had the location prefix *SH*. In order to ensure confidentiality and the interviewees anonymity, names and identifiers were store separately in encrypted files.

Table 2 - Interview Sample

Identifier	Role	Date	Location	Interpreter	Class	Location	Gender
BJ-14-11-001	Expert	04.11.14	Cafe	n	Expert	Beijing	m
BJ-14-11-002	Manager P2P	14.11.14	Cafe	n	Finance Professional	Beijing	f
NJ-14-12-001	Entrepreneur	01.12.14	Office	y	Entrepreneur	Nanjing	m
NJ-14-12-002	VC Project Manager	01.12.14	Office	y	Finance Professional	Nanjing	m
NJ-14-12-003	Real Estate Developer	02.12.14	Office	y	Entrepreneur	Nanjing	m
NJ-14-12-004	Deputy General Manager Microloan Company	02.12.14	Cafe	y	Finance Professional	Nanjing	m
NJ-14-12-005	Entrepreneur & former Shadow Banker	03.12.14	Office	y	Entrepreneur	Nanjing	m
NJ-14-12-006	Entrepreneur	03.12.14	Office	n	Entrepreneur	Nanjing	m
NJ-14-12-007	GM Venture Capital Company	04.12.14	Office	n	Finance Professional	Nanjing	m
NJ-14-12-008	Investment Banker	04.12.14	Office	y	Finance Professional	Nanjing	m
NJ-14-12-009	Professor	05.12.14	Office	n	Expert	Nanjing	m
NJ-15-02-001	Incubator	09.02.15	Office	y	Entrepreneur	Nanjing	m
BJ-15-03-001	Manager PE Fund	09.03.15	Office	n	Finance Professional	Beijing	m
NJ-15-03-001	Entrepreneur	17.03.15	Office	y	Entrepreneur	Nanjing	m
NJ-15-03-002	Incubator	18.03.15	Office	y	Entrepreneur	Nanjing	f
NJ-15-03-003	Wealth Management Fund Manager	18.03.15	Office	y	Finance Professional	Nanjing	m
SH-15-03-001	Loan Officer JSCB	21.03.14	Cafe	n	Finance Professional	Shanghai	m
NJ-15-05-001	Entrepreneur	27.05.15	Cafe	y	Entrepreneur	Nanjing	m
NJ-15-06-001	Venture Capitalist	16.06.15	Office	y	Finance Professional	Nanjing	m
NJ-15-06-002	Loan Shark	18.06.15	Restaurant	y	Finance Professional	Nanjing	m
NJ-15-07-001	Venture Capitalist	14.07.15	Office	y	Finance Professional	Nanjing	m
NJ-15-08-001	Incubator	03.08.15	Office	y	Entrepreneur	Nanjing	m

Each interviewee was assigned an overarching category. The sample consisted of entrepreneurs, finance professionals and experts. Finance professionals included all individuals, who work for financial institutions, whether they belong to the formal banking sector, financial markets or shadow banks. The two experts were a renown international expert of the Chinese financial system and a professor at a leading research institution based in Nanjing. In total, 50% of the interviewees were finance professionals, 41% were entrepreneurs and 9% were experts. The sample presented a strong male bias, with 20 interviewees, or 91%, being male and 2 interviewees, or 9%, being female. This male bias within the sample might be the result of the recruitment strategy. The network of entrepreneurs I was introduced to were mostly male. The vast majority of interviews, 81.82% were conducted in Nanjing. I conducted the remainder in Beijing (13.64%) and Shanghai (4.55%). Almost one third of all interviews, or 32%, were conducted with the interviewee in English. The remaining 68% of interviews were conducted in Chinese using a local interpreter. The latter were translated simultaneously, allowing me to ask follow up question. After the fieldwork was concluded, the quality and accuracy of the translation was checked by a native speaker. The use of a local interpreter in Nanjing in two cases allowed for a greater rapport with the interviewee, namely in the cases NJ-15-06-002 and NJ-14-12-005. The former was a local private lender and the latter was a former private lender, who now owned various businesses. The presence of a local interpreter, who spoke their dialect, created a more relaxed atmosphere and allowed for more fruitful interviews. A total of 16 interviews were conducted in the offices of the interviewees, five in Cafes and one in a restaurant. Response rates for qualitative interviews are often neglected as part of their analysis (Bleich and Pekannen, 2013). In total, 70 interviewees were contacted for this study, of whom 46 agreed to be interviewed. Their gross response rate was 66%. However only 22 interviewees agreed to be recorded and only recorded interviews were subsequently transcribed and used in my analysis. I personally transcribed the English translation of the interviews. The net response rate was therefore 31.5%.

Below is an organisational chart of my relationship with each interviewee. The first group of interviewees were selected due to their accessibility and some of the contacts were subsequently used for snowballing. Interviewee BJ-14-11-001 was known to me before the fieldwork commenced and is regarded as a leading academic expert on the Chinese financial system. Interviewee BJ-14-11-002 was not known to me before, but was recruited through a mutual friend in London. Interviewee SH-15-03-001 and NJ-14-12-007 are part of my alma mater's alumni network and were recruited at an alumni event in Shanghai. At the time, NJ-14-12-007 was the general manager of a venture capital fund in Nanjing. He willingly and voluntarily offered to introduce me to entrepreneurs, incubators and financial professionals, whom he knows. He subsequently became my gatekeeper in Nanjing and through him, I was able to recruit interviewees, NJ-14-12-001, NJ-14-12-002, NJ-14-12-003, NJ-14-12-005, NJ-14-12-006, NJ-14-12-008, NJ-15-2-001, NJ-15-06-001, NJ-15-07-001 and NJ-15-08-001. None of these interviewees were previously known to me. Through NJ-14-12-001 I was able to recruit NJ-14-12-004, who was a personal friend of the former and was the deputy general manager of one of the largest microloan companies in Nanjing. NJ-14-12-005 was initially introduced to me as an entrepreneur. During the course of the interview, I discovered that he had been involved in informal finance before he became an entrepreneur and still had a large network in the field. Through him I was able to recruit NJ-15-03-001, NJ-15-03-002, NJ-15-05-001 and NJ-15-06-002. None of these interviewees were previously known to me or my initial gatekeeper in Nanjing. Interviewee NJ-14-12-009 was recruited through a talk on shadow banking in Shanghai, where he was the key speaker. He was not known to me prior to the interview. Interviewee BJ-15-03-001 was introduced to me through a mutual friend, who hailed from the same province as him. I also had no previous contact with him.

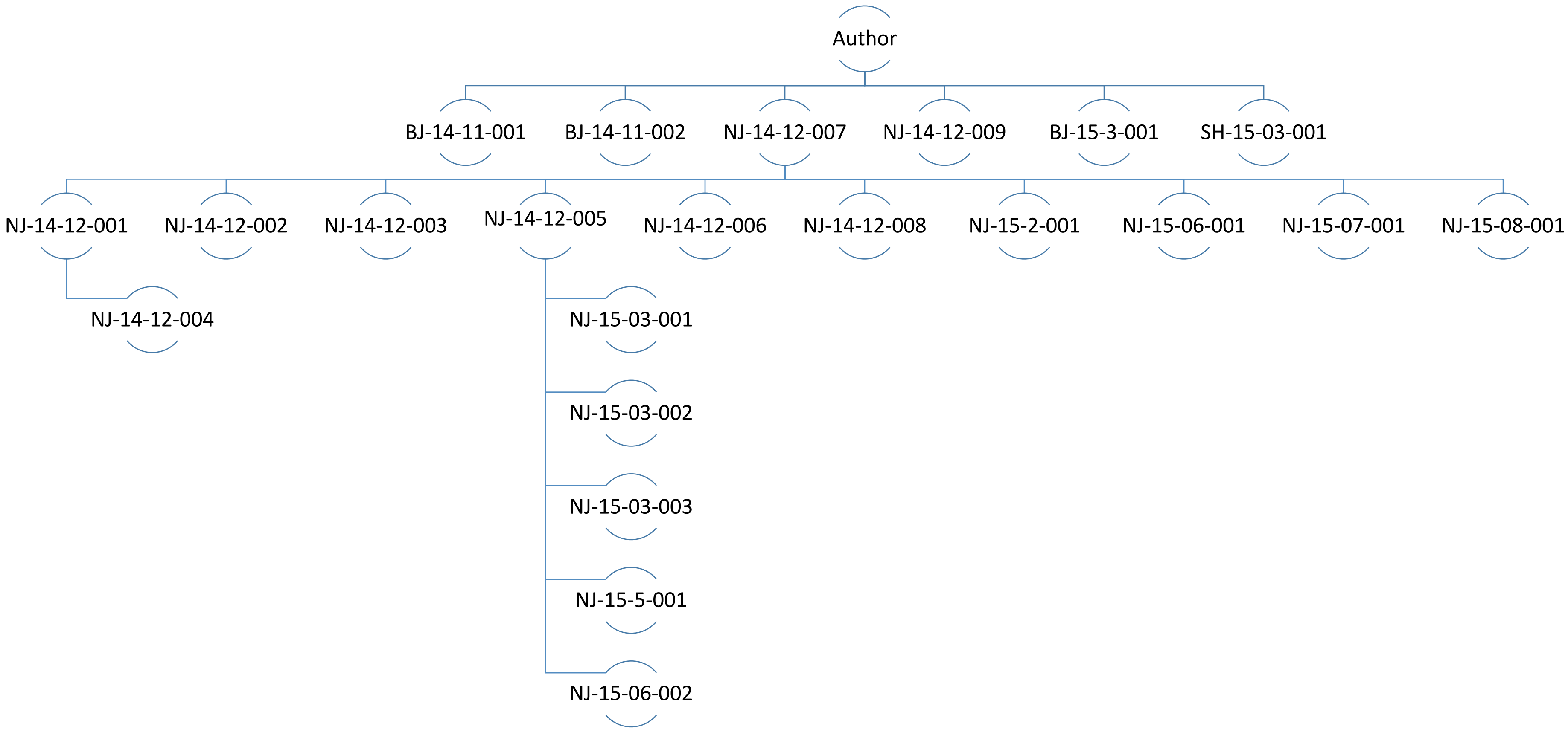

Diagram 2 - Tree Diagram of relationships between interviewees

2.2.2 Interview Questions

All interviews were semi-structured interviews. A few general questions were used across all interviews to allow for an easier comparability of answers. Where appropriate and insightful, Interviewees were asked follow up questions. Entrepreneurs were mainly asked about their personal experience in obtaining loans from different types of financial institutions. The aim here was to assess, if entrepreneurs felt it was easier or more difficult to obtain bank loans vis-à-vis shadow bank loans. It was further important to establish, which financial institutions entrepreneurs used and why. While the main aim of these interviews was to gather information on the experiences of entrepreneurs, they also aimed at gathering information about the way in which shadow banking operates and on what terms and conditions loans are extended. A full list of core questions for interviewees is included in the appendix of this study. The interview questions broadly sought to address three core themes: regulation, competition and experiences. The first theme sought to establish, if regulation plays a role in shaping the function of the shadow banking sector. Directly related is the question, whether shadow banks compete with the the formal financial sectors. Interview questions lastly sought to gather data on experiences with the shadow banking and the banking sectors. These experiences included, for example, loan approval times, interest rates or internal procedures.

Entrepreneurs were first asked as an opening questions, whether the financial sector in China was too heavily regulated when it comes to private enterprise finance. This question sought to establish whether the interviewee saw the problems associated with access to finance as a regulatory issue or whether they felt there were other reasons. Interviewees were further asked, if they felt that a lack of competition made it more difficult to obtain access to bank loans. Entrepreneurs were further asked about their own experiences with the formal banking sector vis-à-vis the shadow banking sector. For example, entrepreneurs were asked if they had heard of initiatives to allow banks to accept collateral for loans in the form of intellectual property. The questions, which provided the most interesting insights, asked entrepreneurs whether China needed a shadow banking sector and if so, if the interviewee could name three distinct reasons for this need. In interviews towards the end of the fieldwork, this was one of the first questions asked by the interviewer. It helped to give the interviews scope and structure, because it provided an opportunity for follow up questions. Entrepreneurs were further asked, how they would obtain a loan from a shadow bank. This question sought to establish the different ways, in which borrowers secure loans from shadow banks. Lastly, entrepreneurs were asked how much interest they paid for loans from different shadow banks, if they had used them.

Interviews with finance professionals and academic key informants mainly centred on assessing the extent to which regulation and the corporate governance of SOCBs are shaping the functions of the shadow banking sector in the Chinese financial system. Questions aimed to establish the extent to which the regulatory framework and ownership structure of the formal financial sector shaped the role played by the shadow banking sector. Interviews with finance professionals, both in the formal financial sectors as well as the shadow banking sector, further aimed to generate an understanding of how loan decisions are being made. Interviewing various actors within the shadow banking sector, both formal and informal lenders, provided me with invaluable insights into the inner workings of the sector and its relationship with the formal financial sectors. Finance professionals and shadow bankers were firstly asked what their institution accepted as collateral. The scope of this question was to establish, whether one institution had a competitive advantage over the other by accepting different forms of collateral. This group was further asked, whether they had encountered initiatives to accept intellectual property as collateral for loans and if this system could work elsewhere. In addition to questions on the internal procedures of their respective institutions, the interviewees were also asked more broadly about the function of the shadow banking sector within the financial system. In particular, I was interested in establishing whether they thought that shadow banks were competing with regular banks. Can shadow banks effectively challenge the role of banks and possibly even replace them?

2.2.3. Analysis

Following transcription, all interviews were coded using NVivo for Mac. The first round of coding aimed at identifying *emergent categories* in the data (Beuving and de Vries, 2015: 163). Emergent categories allow the researcher to identify meaningful categories in the data. The aim was to understand experiences of and with the financial system as a whole. In order to engage in a meaningful analysis of the function of the shadow banking sector, it was important to understand the inner workings of the financial system as a whole. Therefore, the data was coded broadly into categories. During the second and third round, I engaged in *axial coding (Beuving and de Vries, 2015: 166)*. Axial coding means that '*categories emerge into new higher order categories*' *(Beuving and de Vries, 2015: 166)*. The two main themes, which emerged subsequently highlighted the functions of the formal financial sectors, namely financial markets and formal banks, vis-à-vis the shadow banking sector. Another theme, that emerged through axial coding were distinct supplementary functions, which the shadow banking sector provides. Out of the emergent categories identified in the early rounds of coding came four distinct functions. Other key themes were regulation and the role of government. The tree map diagram below shows coding for different key themes across the entire sample.

What became apparent after the analysis of all material was concluded and interviews had been coded for a third time was that there were certain shadow banking institutions, which were used frequently, e.g. microfinance or P2P. Others, which had been frequently referred to in the literature review did not play a role in the financial landscape of Nanjing, e.g. pawnshops or rotating credit and savings associations. The institutional analysis of Nanjing's shadow banking sector subsequently focused on the most frequently coded institutions in the sample. It further became apparent, that the shadow banking sector provided a range of functions to the entire financial system not just to entrepreneurs or other borrowers.

2.2.4. Issues

Through the fieldwork and analysis, I encountered two main issues. The first issue was identified early on during the fieldwork. During the interview NJ-14-12-001 it became apparent, that the interviewee understood the term shadow banking (影子银行) as referring solely to informal and even illicit finance. He proceeded to say that he had never used 'shadow banking' but had often used 'non-banks' (非银行). In subsequent interviews, I personally only used the term for shadow banking after explaining that in academic literature it refers to any form of non-bank financial institution and is not limited to informal or illicit finance.

The second issue, which had an impact on the analysis is the relatively small sample size. While it is important to note that the quality of information I was able to obtain was good and all interviewees provided valuable and important insights into the role of the shadow banking sector, the low number of recorded and transcribed interviews does affect the representativeness of the sample. Furthermore, I was unable to recruit a large number of interviewees in Beijing. This means that the findings on Beijing are largely informed by the findings of the quantitative fieldwork.

2.3. Quantitative Methods

Due to the nature of the shadow-banking sector and the various institutions that constitute it, quantifiable data on shadow- banking is scarce. To supplement the findings derived through the above-mentioned methods, I decided to also use survey methods and attempt a triangulation of my findings. From October 2014 to August 2015, I ran an online survey for entrepreneurs. The survey was written in simplified Chinese characters to allow an easy access for all entrepreneurs.

2.3.1 Sample Group, Recruitment and Response Rate

The survey was aimed at entrepreneurs and business executives. Participants were recruited online and offline. Online recruitment was done by proxy, through entrepreneurs, with whom I had previous encounters or friendly relationships. These entrepreneurs were asked to forward the link to the online survey to their friends and peers through online social media. Two platforms were particularly useful in the recruitment process, Tencent Weibo (腾讯微博) and WeChat (腾讯微信). The latter platform also has large chat groups for entrepreneurs in Shanghai and Beijing. Through personal contacts, the link for the online survey was posted in these groups. Offline, participants were recruited using personal social networks. I personally send the link to the survey to entrepreneurs, with whom I had friendly relationships.

As the link was shared widely across the country, and through various social media outlets, it was viewed by 1187 potential participants. Out of this potential pool of participants, 206 started the survey subsequently. A total of 126 participants completed the survey. In total, 61.16% of those, who commenced the survey ultimately completed it. Part of this low rate of successfully completed responses is that the first two questions included knock-out criteria for the participants, which were not previously known to them. Participants were given a choice of different professions and potential positions, which they might hold within a commercial enterprise. Any participant, who answered that they were not an entrepreneur was subsequently excluded from taking part in the rest of the survey.

Overall, respondents came from 14 different locations throughout China. The largest group of respondents within the sample came from Beijing. This was particularly useful, because I had not been able to recruit many interviewees in Beijing. A total of 27 participants from Beijing completed the survey. The table below outlines the distribution within the dataset according to sorting criteria used in the World Bank Investment Climate Survey. As this is the most comprehensive dataset on enterprise finance available, I have used the same criteria to potentially allow for comparability.

Table 3 – Survey Sample Distribution

Gender	**Count**	**%**
Male	19	70,37%
Female	8	29,63%
Age of Participant	**Count**	**%**
20-29 Years	10	37,04%
30-39 Years	15	55,56%
>40 Years	2	7,41%
Sector	**Count**	**%**
Chemicals	1	3,70%
Construction	2	7,41%
Consulting	5	18,52%
Food	2	7,41%
Garments	1	3,70%
IT	4	14,81%
Machinery and Equipment	3	11,11%
Other	5	18,52%
Other Manufacturing	2	7,41%
Textiles	1	3,70%
Transport	1	3,70%
No. of Employees	**Count**	**%**
self-employed	5	18,52%
1 to 4 Employees	3	11,11%
5 to 9 Employees	10	37,04%
10 to 19 Employees	6	22,22%
20 to 99 Employees	1	3,70%
Over 100 Employees	2	7,41%

More than 10% foreign Ownership	**Count**	**%**
Yes	4	14,81%
No	23	85,19%
Annual Turnover	**Count**	**%**
<10,000 CNY	4	14,81%
10,000 - 100,000 CNY	8	29,63%
100,000 - 999,999 CNY	9	33,33%
>1,000,000 CNY	6	22,22%
Age of Enterprise	**Count**	**%**
N/A	1	3,70%
≤ 1 year	10	37,04%
≤ 5 years	12	44,44%
≤ 10 years	2	7,41%
≤ 15 years	2	7,41%

Just like the sample of qualitative data, this dataset too presents a clear male bias. In total, 19 participants identified as male and eight participants identified as female. The majority of participants were between 30 to 39 years old, when they took the survey. The second largest group were participants between 20 to 29 years of age. Overall, participants worked in a range of different industries. The largest two sub-samples worked in IT, consulting and other. The size of the participant's enterprise was measured through two proxies. The first is the number of employees and the second the annual turnover in Chinese Yuan (CNY). In terms of their number of employees, the full range, from self-employed to over 100 employees, was represented in the sample. The three largest sub-groups were enterprises with five to nine and ten to nineteen employees, as well as self-employed entrepreneurs. In terms of their annual turnover, the sample too included enterprises with a turnover under 10,000 CNY to over 1,000,000 CNY. The sample also presented a strong bias against enterprises with foreign shareholders. Only 4 out of 27 participants declared that their enterprise had more then 10% foreign ownership. The threshold of 10% was adopted from the World Bank Investment Climate Survey. The vast majority of enterprises had been in operation for under five years. Almost half of all participants had been operating for between one to five years.

The research design of this study does not allow us to independently verify the information provided by the survey respondents. This might be considered as a shortcoming, because we cannot verify that all information provided is accurate or genuine. I am aware that this is a potential shortcoming. An alternative was not feasible, because entrepreneurs were unlikely to fully disclose their business accounts to an outsider for research. Furthermore, the anonymity of an online survey was necessary to obtain any information at all.

2.3.2. Survey Structure and Questions

The aim of the survey was to establish, which lines of credit private enterprises used. The goal was to enhance our understanding and comprehension of whether the formal banking sector was competing with the shadow banking sector or whether participants used the latter out of necessity. It was further the aim to of the survey to establish, if the source of finance used changed over time. For example, it is understandable that an enterprise in the start-up stage may not have access to bank finance. A colloquial saying amongst entrepreneurs and scholars of business goes, that in the beginning only the '*three Fs*'[5] invest in an enterprise but not banks. Entrepreneurs were therefore asked to indicate, which sources of finance they had used in their initial start-up phase. Entrepreneurs were further asked to indicate, which sources of finance they had used in the twelve months prior to taking the survey. Entrepreneurs were further asked to indicate, what percentage of their total finance had come from these sources. It generates little insight into the role of the shadow banking sector to only see, that an entrepreneur had used both bank loans and shadow bank loans, but not know, where most of the capital originated from. For example, if 99.99% of finance had come from bank loans and only 0.01% from shadow bank loans, the function of the shadow banking sector is different than if it is the other way round. Simply asking if an institution had been used is not enough.

In order to establish if entrepreneurs used shadow banks, because they were accessible or because they preferred using them, participants were asked to rank a range of institutions according to their preference and according to their accessibility. It may be that entrepreneurs use shadow banks, because the banking sector is not providing adequate loan facilities. It may also be the case that they use shadow banks, because the quality of service

[5] The three Fs refer to **f**riends, **f**amily and **f**ools.

provided by the shadow banking sector. In order to ascertain this, the survey also asked participants to rate the services provided by formal financial institutions and the shadow banking sector. Lastly, the survey sought to establish, if the access to finance has had a positive or negative impact on the individual enterprise's development. For example, we may find that the shadow banking sector has been successful at alleviating problems connected to the access to finance and that overall, through a use of different and various institutions, entrepreneurs felt that access to finance was not an issue for them.

Lastly, participants were asked for comments regarding the role and state of the shadow banking sector in the Chinese financial system. This open-ended question was included to allow participants to highlight and add aspects, which they felt were important but were not covered by the standard survey.

The final ten questions of the survey allowed us to group the responses, by asking about the entrepreneurs age, gender, place of residence (hukou), place of business and level of education. The participants were further asked about the sector their business operates and size of the company, in terms of employees.

I developed the survey and participant information sheet in English. In order to broaden the pool of participants, it was important that the survey was made accessible in simplified Chinese characters. As they were already involved in the research and confident in the necessary vocabulary involved, my interview interpreters also translated the survey. Their translation was further cross-checked by another native speaker. The translation of the survey is included in the annex of this study. Below are the questions and possible answers in plain English.

1. In your initial start-up phase, which of the following financing options did you use
    a. Internal funds or retained earnings
    b. Owners' contribution or issued new equity shares
    c. Bank loans from of the SOCBs

        i. Agricultural Bank of China
        ii. Bank of China
        iii. China Construction Bank
        iv. Industrial Bank of China
    d. Bank loan from a JSCB – Please specify
    e. Bank loan from another Chinese bank – Please specify
    f. Bank loan from an international bank – Please specify
    g. Loan from a non-bank financial institution
        i. Formal
            1. P2P Finance
            2. Microloan
            3. Venture Capital
            4. Private Equity
            5. Other
        ii. Informal
            1. Friends
            2. Relatives
            3. Other company
            4. Other
    h. Purchases on trade credit
    i. Other
        i. Personal loans from members of my family
        ii. Personal loans from friends
        iii. Loans from a *hui*
        iv. Loans from a money lender
        v. Venture Capital
    j. Other (please specify)
2. In the last 12 months, have you used any of the following financing options and if so, please provide the proportion of the total?
    a. Internal funds or retained earnings
    b. Owners' contribution or issued new equity shares
    c. Bank loans from of the SOCBs
        i. Agricultural Bank of China
        ii. Bank of China
        iii. China Construction Bank
        iv. Industrial Bank of China
    d. Bank loan from a JSCB – Please specify
    e. Bank loan from another Chinese bank – Please specify
    f. Bank loan from an international bank – Please specify
    g. Loan from a non-bank financial institution
        i. Formal
            1. P2P Finance
            2. Microloan
            3. Venture Capital
            4. Private Equity
            5. Other
        ii. Informal
            1. Friends

        2. Relatives
        3. Other company
        4. Other
    h. Purchases on trade credit
    i. Other
        i. Personal loans from members of my family
        ii. Personal loans from friends
        iii. Loans from a *hui*
        iv. Loans from a money lender
        v. Venture Capital
    j. Other
3. How do you perceive the services provided by formal financial institutions?
    a. 6-point scale from positive to negative
4. How do you perceive the services provided by informal financial institutions?
    a. 6-point scale from positive to negative
5. If you received a loan from a bank, could you please indicate which bank
    a. Agricultural Bank of China
    b. Bank of China
    c. China Construction Bank
    d. Industrial Bank of China
    e. Other (please specify)
6. Please rank the following financing options according to your own personal preference.
    a. Internal funds or retained earnings
    b. Owners' contribution or issued new equity shares
    c. P2P Finance
    d. Microloan
    e. Venture Capital
    f. Private Equity
    g. Loans from Friends
    h. Loans from Relatives
    i. Loans from other companies
    j. Loans from a money lender
    k. Purchases on trade credit
    l. Other (please specify)
7. Please rank the following financing options according to your own accessibility:
    a. Internal funds or retained earnings
    b. Owners' contribution or issued new equity shares
    c. P2P Finance
    d. Microloan
    e. Venture Capital
    f. Private Equity
    g. Loans from Friends
    h. Loans from Relatives
    i. Loans from other companies
    j. Loans from a money lender
    k. Purchases on trade credit
    l. Other (please specify)

8. Has the access of finance had a positive or negative influence on your firm's development?
    a. 6-point scale from positive to negative
9. Please indicate your age
    a. Under 20
    b. 20-29
    c. 30-39
    d. above 40
    e. Prefer not to answer
10. Gender
    a. Male
    b. Female
    c. Prefer not to answer
11. What is your place of residence (*hukou*)?
12. What is your place of business?
13. What is your level of education?
    a. Primary School
    b. High School
    c. University
    d. Postgraduate (Master or PhD)
14. Which sector do you operate in?
    a. Food
    b. Textiles
    c. Garments
    d. Non-Metallic Mineral Products
    e. Fabricated Metal Products
    f. Machinery & Equipment
    g. Motor Vehicles
    h. Other Manufacturing
    i. Construction
    j. Wholesale
    k. Retail
    l. Hotels & Restaurants
    m. Basic metals
    n. Chemicals
    o. Electronics & Communications Equipment
    p. IT
    q. Plastics & Rubber
    r. Services of motor vehicles
    s. Transport
    t. Other
15. How many employees do you have?
    a. None (self-employed)
    b. 1-4
    c. 5-9
    d. 20-99
    e. 100+
16. Do you have 10% or more foreign ownership?

   a. Yes
   b. No
17. What was your turn-over in the last 12 months?
   a. Less than 10,000 RMB
   b. 10,000 – 100,0000 RMB
   c. 100,000 – 999,000 RMB
   d. over 1,000,000 RMB
18. How long has your business been operating?

2.3.3 Analysis

The number of participants in the survey severely limited my ability to conduct an analysis using statistical models or regression. The geographical fragmentation of the sample, which at times only included one or two responses per city, made it difficult to use the data for a large n-scale analysis of the the role of the shadow banking sector for the entire economy. The data was therefore analysed to produce a descriptive analysis for the chapter on the local shadow banking sector in Beijing.

In order to conduct a local institutional analysis and map out the local landscape of the sector, I used data on the use of shadow banks in the 12 months before the survey and the preference/accessibility of financial institutions overall. Analysing the use pattern of various financial institutions allowed us to see, which institutions were indeed relevant in Beijing. If entrepreneurs are using them, they must be relevant. This data was then used to see if there are different usage patterns across industries, size of the enterprise or industries. Once we had established a usage pattern, we could establish, if these institutions were used because they provided a service that was better than their counterparts in the formal financial sectors (preference) or whether they were only used, because they provided easier access to finance (accessibility). Comparing the two across different kinds of enterprises would further give us a better understanding of the institutional make up of the shadow banking sector in Beijing.

The quantitative data only allowed us to focus on one function of the shadow banking sector: Access to finance. In order to measure if the shadow banking sector had provided additional access to finance to entrepreneurs, I sought to establish if enterprises, who relied more on shadow banking felt that access to finance was less of an obstacle for them. If this was the case, we could conclude from this that shadow banks provided a supplementary function to the real economy by supplementing the functions of the formal financial sectors.

2.3.4 Issues

The key issue for the use of the survey data in our comparative study of Nanjing and Beijing was the low number of survey participants from Nanjing. While the recruitment of interviewees in Nanjing was fruitful, the same cannot be said about the recruitment of survey participants. For Nanjing, the dataset showed only a handful of started surveys and even fewer completed surveys. For Beijing, the recruitment of survey participants was more successful, than the recruitment of interviewees.

Another issue was the low number of completed survey questionnaires. This further limited my ability to conduct an analysis using complex statistical models or regression. In total, 27 survey were completed for Beijing and I therefore only used them for a descriptive analysis. The sample size casts doubt over the generalizability of its findings. Due to the the method, in which participants were recruited, a quasi ‘digital-snowballing’ we can further not ignore the chances that there is a selections bias within the sample. There were no possible steps to overcome this potential issue.

Another issue arose from a flaw in the wording of survey question three and four. I had initially intended to use these questions to gather data on a potential comparative advantage that one financial sector has over the other. The question however asked participants to rate their experiences with formal and informal financial institutions. These two categories provided little insight, because they overlap in the shadow banking sector. There are formal financial institutions, which operate like banks but are considered shadow banks. One example of such an institutions are microloan companies. These institutions are formally regulated business entities and hence should be regarded as formal financial institutions. Chapter 4 will discus the varying degrees of formality in the shadow banking sector in much greater detail. Informal financial institutions can all be regarded as shadow banks, but not all shadow banks are informal. Therefore, the data gathered for these two questions could not be used in our further analysis.

2.4. Concluding Remarks

Throughout this chapter, I have discussed the the merits and shortcomings of using qualitative and quantitative methods. Quantitative studies on shadow banking are difficult, because reliable data on the use of shadow banking is difficult to obtain. Purely relying on qualitative methods is also problematic, because independent verification of the data is difficult. Due to their respective shortcomings, I adopted a mixed-methods-approach. The aim is to overcome the shortcomings of one method through triangulating and correlating it with the findings of the other. This approach has gained wide prominence in academic research for producing more reliable and trustworthy results.

I collected the empirical data for this study the form of interview and survey data over the course of a 12-months period in China. In order to address any issue surrounding the research design of this study, I have included a comprehensive research appendix. This includes a list of interview questions and the full translation of survey questions. In order to address some of the issues surrounding the accuracy of reporting, interview transcripts are available from me upon request. They were not included in the research appendix.

The research design of this study was challenging for me as a researcher, because of the broad variety of research subjects. Some of my interviewees were well-educated professionals, while others were low- to mid-level money lenders, who had a questionable understanding of the rule of law or business ethics. The biggest achievement of the research for this study was that I gained access to them and they openly talked about their experiences and business activities.

Despite my precautions, this research design comes with a challenges. The first applies to both the survey and the interview data: reliability of information and a self-assessment bias. I had to rely on my research subject's honesty and integrity, when it came to their answers. I had no means to independently verify all information provided by participants. The second challenge was the recruitment of research participants. In the two cases at hand, Beijing and Nanjing, I had mixed success in this endeavour. In Nanjing, I was able to recruit a large number of interviewees, who provided me with high-quality information and good insights. On the other hand, I was not able to recruit enough survey participants to triangulate the findings from the interview data with survey data. In Beijing on the other hand, I was able to recruit a large number of survey participants and but no significant interviewees. I was therefore not able to triangulate the survey data with interview data.

To conclude, the research design sought to allow me to research the inner workings of the shadow banking sector and its function within the Chinese financial system. The aim was to establish, if there is a core function provided by the sector. As this dissertation will demonstrate throughout, I was able to identify a core function and the linkages of the shadow banking sector with the other two financial sectors and the rest of the the real economy.

Chapter 3: The Chinese financial system

This chapter will analyse the Chinese financial system by applying the existing framework of financial systems design theory. It provides a detailed analysis of the state of the two financial sectors: the banking sector and financial markets. This chapter will first describe the historical developments, which significantly affected the development of the PRC's financial system in the reform and post-reform era. It will also discuss some of the issues associated with this development, namely the problem of an omnipresent state. It will then critically discus the key actors in the banking sector: state-owned commercial banks (SOCBs), joint-stock commercial banks (JSCBs), city commercial banks (CCBs) and foreign banks. This chapter will further discuss and highlight the development of Chinese financial markets. It will describe and analyse the development and current state of the equity and bond markets at both, the Shanghai Stock Exchange and the Shenzhen Stock Exchange. This chapter will then conclude that within the existing framework, the Chinese financial system can only be seen as a bank-based financial system, but that banks do not necessarily provide all the functions, which the literature implies they should.

3.1 The Chinese Banking Sector

Within less than three decades, the Chinese banking sector has evolved from a Soviet-style mono-banking system to banking sector within in a modern financial system. This in itself is a remarkable achievement. Reforms have been undertaken to ensure that banks provide the functions that the economy needs. On the other hand, China's economy is still a socialist market economy, demonstrating what Ding (1994) calls *institutional amphibiousness*: a market-oriented economy based on a strong involvement and control of a one-party state.

In China, banks are important. In 2014, China's total bank assets amounted to over 270% of GDP (CBRC, 2015). In the economy, their financial power, role and ownership structure makes them integral to economic activity. Despite the rise of other investment products and opportunities through the growth of the equity markets and financial engineering, banks are and will continue to be important. The following section discusses the development and reforms of China's banking sector since 1978, including the important milestones, which have shaped the banking sector in the second largest economy on earth. It examines how a *multiple-principal* problem in the Chinese system has been at the core of one of China's most endemic banking problems: the SOE lending bias.

3.1.1 Development of the Chinese banking sector and its regulations since 1978

In the early reform era, the Chinese banking sector was marked by its history of state-led development under Communism. During the Mao era, the state was the only creator of wealth and investment. Between 1948 and 1978, the state actively pursued a strategy of destruction of the remnants of the private financial sector in its pursuit of a planned economy model of development (Collins and Gottwald, 2011). China's economy operated under a mono-bank financial system (Sufian and Habibullah, 2012). The PBOC absorbed deposits from households, SOEs and government units and provided short-term working capital back to SOEs (Shih, 2009). Banks were foremost there to distribute money to various state-owned enterprises. Their task was to extend non-interest bearing grants and not interest-bearing loans. They role and function differed fundamentally from those described by theories on financial systems design. At the beginning of the reform era, the PBOC controlled 93% of China's total financial assets (Guo and Xia, 2014). Banks were not equipped to fulfil the core services of banks outlined by Schumpeter (2011): to mobilize savings, evaluate projects, manage risks, monitor managers or facilitate transactions. Their staff was made up of bureaucrats and the institution was not designed to provide any of these services. Following the opening of China in 1978 and the gradual development of private enterprises, this had to change. The question is: how did it do that? The reform of the banking sector that unfolded can be divided into three distinct phases.

In the *first reform phase*, from 1978 to 1993, the mono-banking system was changed to a two-tier system with the People's Bank of China as tier one. The PBOC, initially the country's only bank, was to be transformed to provide the functions of a central bank. Its focus had to shift from its previous duties of resource allocation towards that of central bank. It had to be fundamentally transformed to formulate regulation and provide oversight over the banking sector, while also focusing on monetary policy. Below the PBOC, in the second tier were the four state-owned commercial banks - the Bank of China, the Agricultural Bank of China, the China Construction Bank and the Industrial and Commercial Bank of China. After the PBOC became a central bank, other institutions had to take over their banking operations. Direct government grants to state-owned enterprises were replaced by interest-bearing loans (Hsu, 2009). At the beginning, the operations of the newly established commercial banks resembled those of policy banks. Their role was mainly to execute the financial policies of the central government. The former strategy of active destruction of the private financial sector had been successful, as there was no institutional knowledge of how to conduct operations that resemble the workings of typical commercial banks. The state-owned banks were simply not equipped to operate like ordinary commercial banks. They lacked the expertise as well as the business acumen of banks in capitalist countries to provide the functions needed.

The *second phase* between 1994 and 2000 saw a further expansion of the banking sector and the rise of new actors in the banking system. The aim of the second phase was to reduce administrative banking operations and increase the independence of banks and the extent of their commercial operations (Cousin, 2011). Banks were to transform into commercial banks. At the core of these reforms were the changes to the legal framework of banks, namely the 1995 Commercial Banking Law and the 1995 Law of the People's Bank of China. The latter manifested the role of the People's Bank of China as country's central bank. Article 1 clearly outlined that the role of the PBOC was henceforth to be limited to that of a central bank, overseeing monetary policy, establishing macroeconomic control and strengthening the supervision of the financial system. It can be understood as the final completion of the first phase, as it created the legal foundation for the work of the PBOC. The 1995 Commercial Banking Law established the legal basis for commercial banks in China. It defined the rules and responsibilities of banks in the country. It provided a legal basis for the rights and responsibilities of commercial banks, their depositors and other clients. Article 3 outlined the functions that a commercial bank may provide to the general public, including accepting deposits and extending loans. This law was an important milestone, because it allowed the creation of new commercial banks by providing them with a clear legal framework. Commercial banks were henceforth meant to engage only in commercially sound lending. The effectiveness of this policy has been contested, with many arguing that this was little more than wishful thinking. Many have argued that to this day, SOCBs still display a lending bias towards state-owned enterprises (SOEs) (Chen et al, 2013; Chong et al, 2013; Cousin, 2011; Levy and Meyer, 2012; OECD, 2006; Ray, 2002; Sen, 2005, Tsai, 2002). The law itself is even ambiguous in this respect and leaves the entire financial system open to direct government intervention. Article 34 of the 1995 Commercial Banking Law requires that banks conduct their loan business '*with the need for the development of the national economy and social progress and under the guidance of the state industrial policy*' (Cousin, 2011: 62).

Although the aim of the second phase and the legal changes it induced was to make banks function more like commercial banks, the legal framework left open a large backdoor for state intervention. The wording allows the state to command banks to lend to certain industries or companies, regardless of whether the loans are commercially viable. Banks can be forced to comply with this legal requirement, if it is deemed in the interest of the '*national economy and social progress*'. The second phase further saw the establishment of the China Development Bank, the China Export-Import Bank and the Agricultural Development Bank of China as policy banks. Their purpose was to take over policy lending from state-owned commercial banks. In theory the idea was to move all policy-lending away from commercial banks into policy banks. For some operations, for example the implementation of export policy, this has worked well. Overall, policy banks only partially assumed this function in practice, as state-owned commercial banks continued to be involved in policy lending activities.

The first Chinese non-performing loan (NPL) crisis occurred at the end of the second phase. Up until that point, loans had been extended to SOEs regardless of their economic performance. Tung (2002) estimates that 20% of loans in the Chinese banking sector were non-performing at that time. But Lardy (1998) suggested this number immensely underestimated the real scale of NPLs. According to the Chinese definition used for reporting NPLs, a loan is still performing if the borrower can service his interest payments but does not repay the principal loan. So as long as a borrower is able to pay the interest on a loan but never actually repays any of it, the loan is considered as performing. Lardy hence estimates that the real NPL stock in the Chinese banking sector was closer to 40-50% at the time (Lardy, 1998). In an effort to rid the system of bad debt, asset management companies were established to assume these NPLs (Firth et al, 2009). This transfer of bad debt cleaned up the balance sheets of the SOCBs.

If the first phase created a two-tier system, one could argue that the second phase expanded this to a three tier system. The first tier is the PBOC and the second tier is made up of a large array of commercial banks. Through establishing the legal basis for the operation of commercial banks came the opportunity for financial institutions to establish themselves in the Chinese financial system. At the end of this phase, China's banking sector had expanded beyond the four large state-owned commercial banks to approximately 100 commercial banks, 42000 rural credit cooperatives, 300 urban credit cooperatives and 190 branches of foreign banks (Hsu, 2009). The third tier is made up of the two policy banks, which are directly responsible for policy lending to assist the execution of government policy.

With the millennium came the *third phase*, which continues until the present day. With the desire to become a full member of the World Trade Organization, the Chinese leadership embarked on a reform path. Zhou Xiaochuan (2009), the former Governor of the PBOC, identifies three specific impetuses for reform that existed at the time. The first is the need to introduce more efficient accounting standards. The legal changes of the first and second phase had allowed commercial banks to develop and flourish. Effective regulation and oversight on the other hand was partly hindered by poor accounting standards. Improving these standards would allow banks to compete with their foreign counterparts in attracting international investment. Many commercial banks in China, including the large SOCBs and some JSCBs, have made this important transition since and have issued shares on the Hong Kong Stock Exchange. The second is the need for adopting internationally accepted loan classification standards. Partly driven out of the experiences of the NPL crisis of the late 1990s, Chinese banks needed to improve risk control. Improving loan classification standards and oversight were key to achieve this. Chinese banks would now require collateral for all loans. Loan approval for most loans would also require approval from higher organizational branches. The third impetus was the central government's aim to advance the reform of state-owned commercial banks (SOCBs). If the banking sector was not to continue in the same way it had for the 20 years before then, further reforms of the banking sector were needed. Uncontrolled issuance of commercially questionable loans had led to the build-up of large NPLs. This created the necessity for asset management companies to assume the bad debt of SOCBs. In addition to improving accounting standards, improving loan classification, the central government further actively pursued ownership diversification through the issuance of equity on internationally respected financial markets, like the Hong Kong Stock Exchange. If international investors with expertise in the banking sector would become partial owners of Chinese commercial banks, these banks could learn from them. Authorities and regulators also understood that they needed to allow at least some form of competition between different types of commercial banks. The author is not blind to the the fact that while in theory these all sound like realistic and well-meant approaches to SOCB reform, many obstacles would occur on this path. All three impetuses lead to commercial bank reform through financial restructuring, ownership reform and lastly limited exposure to market controls by allowing foreign competition (Cousin, 2011).

The extent to which these impetuses were successful and led to lasting change is debatable. To this day, the Central Government still exercises great control over the country's banking sector. This control is enshrined in the 1995 Commercial Banking Law. It is because of this that the OECD (2006) notes that Chinese banks are not well equipped to respond to market signals. As their primary role is being the being supporters of social, regional and industrial policies, banks lack the institutional knowledge to respond to the needs of the market. Tsai (2002) went as far as saying that SOCBs were not acting as profit-oriented commercial banks. The state ultimately produced a regulatory framework, which at times may supersede commercial concerns. On the other hand, the distribution of assets within the banking sector has changed drastically over the last years. As this Chapter discusses in great detail, JSCBs have been able to take away some assets from their state-owned counterparts. This is an indication that allowing competition has had a lasting effect on the Chinese banking landscape.

By allowing new foreign institutions into the market, the central government sought to increase competition and strengthen market control. After 2006, foreign banks were allowed to acquire equity in Chinese commercial banks and compete with them on the domestic market (Hsu, 2009). With China's membership in the World Trade Organization all formal barriers of entry were meant to be removed. Foreign banks operating within China may now offer a wide range of banking services, such as deposit taking, financial leasing, payment and money transfer services and all lending activities (Cousin, 2011: 294, Yao et al, 2007). It is important to note that despite the removal of hard barriers to entry, i.e. laws and regulation outlawing foreign banking operations on the territory of the PRC, a huge array of soft barriers continues to exist to this day. An interviewee, a former executive of a big foreign bank in China, highlighted that foreign banks have a competitive disadvantage, because regulation tends to be implemented, followed and checked rigorously by supervising authorities.[6]

> *"We do a business as a foreign bank, we will might be punished or they will withdraw our licence but with Chinese banks, they do not. Because of the connections." - Former Bank Executive*[7]

It is hence important to note that while there might not be formal barriers to market entry for foreign banks in China, there are very strong soft barriers to market entry. This echoes the experiences of other large foreign banks, which have been struggling to become profitable in the Chinese market. Internationally established banks like Citigroup have long been struggling

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[6] Interview BJ-14-11-002
[7] ibid.

to establish a profitable business in China (Areddy, 2016). We could ask, why this is indeed a problem, if China has been able to create a flourishing banking landscape? Does China need foreign banks in order to continue its impressive economic growth? According to Wang (2010: 5461) the lack of inter-bank competition is one of the causes for a shortage in credit for private sector enterprises. It appears nonetheless, that competition by foreign bank has not been able to alleviate this issue. This is mainly due to the low asset share that foreign banks have in the market. At the end of 2014, all foreign banks had a combined asset share of 1.62% the total bank assets in China (CBRC, 2015). That would indicate that in the last 10 years, foreign banks have not risen to become significant competitors.

In addition to the three impetuses for change and the reforms, which went along with it, the mid 2000s saw further important developments: the introduction of an additional regulatory and supervisory body. Henceforth the banking sector has been regulated by two authorities, namely the PBOC and the China Banking Regulatory Commission (CBRC). The PBOC, as previously noted, is the Chinese central bank. It is responsible for drafting and executing monetary policy, supervision of the domestic inter-bank loan and bond markets, formulating reserve requirements of banks, as well as other instruments that affect banks' liquidity (Sufian and Habibullah, 2012). It has a ministerial rank under the leadership of the state council and manages the monetary policy of the People's Republic of China. This is an important difference to central banks in most developed countries, as the independence the central bank is often considered a key cornerstone in modern monetary policy. The PBOC on the other hand, requires state council approval for tasks like setting interest rates, setting money supply targets and managing the exchange rate.

The CBRC was establish in the 2003 Law on Banking Supervision and Administration (Cousin, 2011). Its stated aims are to ensure that financial institutions adhere to the law, to ensure the stability of financial institutions' operations and to ensure the public's trust in these institutions. Furthermore, Article 3 established that the CBRC should also aim to establish fair competition amongst institutions. The 2006 Law on Banking Supervision and Administration further gave the CBRC the power to foreclose loans and investigate allegations of fraud in third parties. The main objective of the CBRC is to close the gap between international and Chinese banking practices. As the responsibilities between the CBRC and the PBOC overlap at times, this is no easy undertaking (Cousin, 2011). The PBOC has a ministerial rank so in case of an overlap, its decisions trump those of the CBRC. Both of these institutions are institutions under the State Council. They report to it and their leaders are appointed jointly by the State Council and the National People's Congress. The state has set up a regulatory framework, which puts the banking sector under strict state control and limits through laws and regulatory agencies the role that a market may play.

3.1.2 The omnipresent and omnipotent state in China's banking sector: a multiple principal conflict and the SOE lending bias

De jure all regulators should be free from influence of local, national or other government departments. This does not necessarily translate into *de facto* independence (Cousin, 2011). This is not surprising, as the approach to regulation in China can best be called as following the *public interest approach*. This approach puts the public interest in regulation above the private interest is letting market forces reign supreme. It presupposes that market failures are to blame for interfering with the incentives and abilities of private agents to monitor, and discipline where necessary, the behaviour of banks (Levine, 2002). According to Levine (2002) we can further identify four core elements of a banking sector, where regulation follows the public interest approach. Firstly, the government owns much of the banking sector. Secondly, it restricts banks from emerging in non-lending activities. It further limits the entry of new banks and lastly, it creates powerful supervisory agencies, which oversee and discipline banks. This is in stark contrast to the *private interest approach*. This second approach assumes that politicians and government supervisors do not maximise social welfare by regulating the banking sector. Instead, they seek to engage in regulatory activity for personal gain. It thus draws the conclusion that the governance of banks is best left to the private sector and market forces. Without much analyses, we can see how Chine is following a public interest approach. The market entry of new banks is restricted. There is a complex licensing system in place, which make it close to impossible to establish new banks. Both the PBOC and the CBRC hold immense power in overseeing and disciplining banks. As previously noted, these institutions are not free from direct political influences (Collins and Gottwald, 2014).

The Chinese government has this a dual role in the financial system, as both the owner and regulator of banks (Fu et al, 2015). The five largest banks in China are state-owned. Their role is enshrined in the financial system. The Chinese commercial banking law potentially makes all commercial banks prone to state involvement. That is the legal basis for their operation and the central government has the right to intervene and compel banks to support their policy. The central government also directly intervenes in the operation of commercial banks. They operate loan quotas, which are set by the central bank on the basis of state policy. Lastly, the central government has set up regulatory agencies, which report to the state council of have ministerial rank, e.g. PBOC. This means that the regulator does not operate independently or can regulate this system without state interference.

This bears the question as to why this might be a problem. After all this system has worked thus far and has fuelled a truly remarkable growth. The level of independence of central banks varies around the world. We can argue that albeit not being legally bound by the decisions of the government the US central bank, the Federal Reserve is not entirely free from governmental control. Other countries with a strong bank-based financial system, e.g.

Germany, also have powerful banks that are owned by the state (e.g. the *Sparkassen*). So why is this an issue in China? The issue is that the structure cements an integral conflict into the financial system: a *multiple principal conflict*.

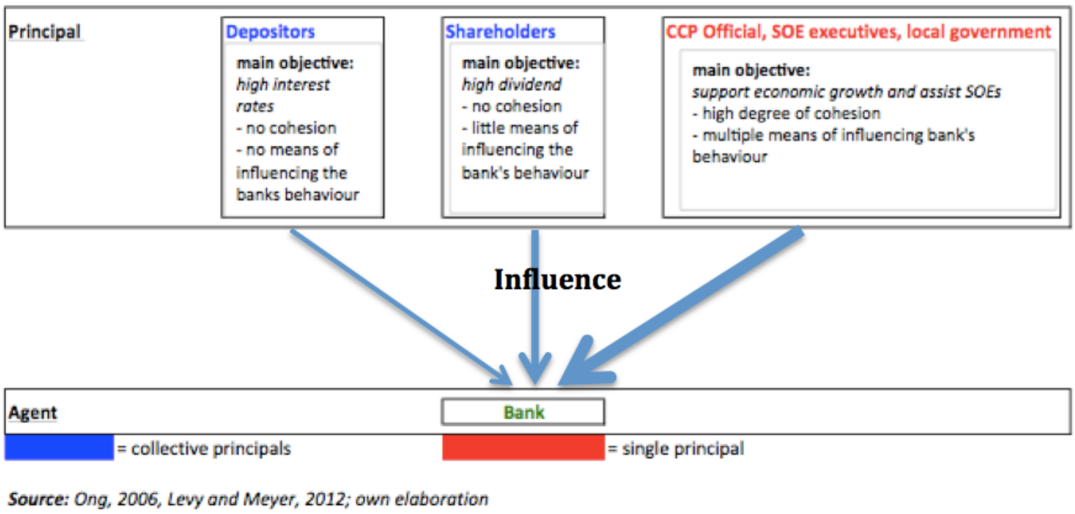

Diagram 3 - Multiple Principal Conflict

Ong (2006) identifies the existence of a *multiple principal conflict* as a possible contributing factor for the lack of access to formal finance for privately owned enterprises, and small- and medium-sized enterprises in particular. In her analysis of private households' poor access to credit provided by rural credit cooperatives (RCCs), she uses agency theory to argue that the existence of multiple principals is one of the key factors for the poor access to credit. These principals have different and sometimes conflicting goals and motives. Due of the penetration of supervisory organs by the local government and communist party officials, the interests of the other principals, households and cooperative members, were not protected. Out of the 200 household members she interviewed, less than 5% had ever attended a RCCs member's representative meeting. These meetings are the highest organ in a cooperative financial institution, but despite this being their legal right they had not participated in the meetings (Ong, 2006). Those who had taken part in such meetings happened to be village or township heads or party secretaries. The issue was further exacerbated by multiple types and numbers of principals.

In her analysis, she distinguishes between two forms of principals. The first is a *collective principal.* Collective principals display low levels of cohesion. In the case of financial institutions, we can classify depositors and shareholders as one collective principal. Their interest lies in the profitable operation of said financial institutions. If the institution is profitable, depositors will receive higher interest rates on their deposits and shareholder will receive a higher dividend on their investment. Their interest is therefore aligned. On the other hand, there is little more that binds these two groups together. Therefore, their ability to exercise control over the agent, i.e. the financial institution, is significantly lower than the ability of the *single principal* (Ong, 2006). The single principal can be broadly described as the political elites. In her study, this refers mainly to the local party cadre, however in the greater financial system, this includes the local, provincial as well as central level. The main objective of the central and local government has been to use the financial system to allocate financial resources to SOEs in order to manifest the political patronage from urban workers (Ong, 2006).

When we turn our attention to the key cornerstones of the regulatory environment for China's banking sector, we see why this is important. The entire system has reproduced this multiple-principal conflict. The state exercises direct control over the majority of the banking sector and the financial system as a whole. It does so in two ways: through direct ownership over the five largest commercial banks and through a regulatory environment, which in the past has favoured these institutions. The concept of a multiple-principal conflict helps us to understand the behaviour of commercial banks in China. It allows us to gain a much more precise understanding of the processes, which have led to an allocation of resources in favour of state-owned over the more productive privately-owned enterprises, and small- and medium-sized enterprises in particular. The collective principal is unable to influence the agent in favour of their motives, i.e. higher profits, because the single principal has a comparatively greater power over the agent.

The large power that the state exercising over the SOCBs has one direct effect on the functions provided by them in banking sector: it leads to an *SOE lending* bias. Ray (2002) notes that for Chinese SOCBs commercial concerns only rank second to political concerns, when it comes to lending decisions. Firth et al (2009) point out that government ownership of external financing sources, i.e. commercial banks, has led to a skewed capital allocation. It inherently favours SOEs over POEs. Existing literature has often pointed to this phenomenon, but apart from Ong (2006) and Levy and Meyer (2012) has provided little theoretical understanding of what causes this lending bias. In their analysis of the challenges of SOCB reform in China, Levy and Meyer (2012) similarly argue that the *network governance* of SOCBS has created an array of issues with credit intermediation. Network governance refers to the network of decision makers, namely financiers, government officials and communist party cadres, who all attempt to exert control to pursue a certain goal, mainly the support of transformation of SOEs (Levy & Meyer, 2012). SOCB Board members and executives are recruited from within the network of central and local government officials, the CCP, heads of SOEs as well as other business people. A large fraction of this network is formed of a group with a high degree of cohesion, namely those with network ties to the party state, and thus acts as a *single principal*. Because this principal can exert immense influence on lending decisions and corporate strategy, it comparatively more powerful than the other principals. It leaves little room for the interests of private enterprises without political connections. Private enterprises with good connections to the government find it easier to obtain preferential treatment from banks and thus access to loans (Xu et al, 2013; Khwaja and Mian, 2005; Li et al, 2008).

As the Chinese banking sector is highly concentrated in the hand of SOCBs, the above-mentioned influence affects the vast majority of loans and in great severity. Most SOEs do not face credit constraints (Chong et al, 2013). Lending decisions overall are largely determined by political connections and skew capital allocation in favour of SOEs (Bailey et a, 2011). Due to this preferential access to bank loans for SOEs, financing becomes a problem for other enterprises and ultimately leads to potentially suboptimal investment levels (Xu et al, 2013). Overall, the widespread government ownership of large parts of the banking sector creates poor incentives for lending and lead to biased capital allocation (Chen et al, 2013).

Lu et al (2012) identify four main reasons of why SOCBs display an SOE lending bias. Firstly, it is due direct government ownership. Secondly, government officials have an incentive to fund SOEs, because successful SOEs create political capital. One of the easiest ways to rise through the ranks of the Chinese Communist Party (CCP) is to successfully manage economic development and meet provincial and national targets for employment and industrial output. It usually does not matter, whether the success of an SOE is fuelled by large loans or whether it is due to a successful business operation. Thirdly, bank managers have a high incentive to maintain good relationships with government officials, because essentially they are both state employees. Lastly, the state gives implicit loan guarantees for SOEs. Jiang et al (2013) find that because of the SOE lending bias, SOEs are associated with low efficiency. They have no incentive to maximise their efficiency. As the state is the owner as well as the largest recipient of loans, the other two principals, depositors and shareholders, cannot defend their interests against it.

The problem with the SOE lending bias is that it makes less capital available for POEs. When analysing the loan books of one of the large SOCBs, Sen (2005) found that ABC for example was only giving 10% as business loans and mostly lend to large borrowers. Yiu (2013) further found that in 2009, loans to private enterprises by SOCBs accounted for a mere 3.53% of all loans, despite their accounting for 50% of the economy. Firth et al (2009) puts this slightly higher, arguing that POEs account for 7% of total bank lending. In recent years, the importance of POEs and in particular SMEs in the economy has increased even further, but this has not been matched with a corresponding increase in lending from SOCBs. Huang et al (2016) state that despite SMEs are chronically underfunded in China, despite accounting for 99% of total number of businesses in China and generating 60% of GDP. Elston et al. (2016) also find that SMEs and many POEs still tend to rely on informal finance rather than formal access to capital. The shortage of lines of credit to POEs can therefore only be seen as a symptom of the SOE lending bias, as POEs are actively discriminated against in loan financing in favour of SOEs (Lu et al, 2012). This raises the question of how POEs in general, and SMEs in particular have been able to flourish and build up their importance, despite their financial restraints. Where did this the capital come from?

It is important to not nonetheless, that this picture is not immune from criticism. Firstly, Sen's example of the ABC might be ill-fitted to analyse the POE's access to finance: The Agricultural Bank of China has a proclaimed focus on rural areas and borrowers. Thus we would expect them to lend more money to infrastructure projects in rural areas, household enterprises (farmers) and agribusiness. We would not expect them to engage in large-scale POE lending. The most prominent criticism probably comes from Lardy (2014). He argues that the entire underlying interpretation of statistics is flawed. Firstly, the dataset used by authors like Yiu (2013) only look at short-term loans. Other datasets, which include medium- and long-term loans demonstrate that short-term series tend to understate the importance of POE lending by a factor of ten. Secondly, the dataset classifies POEs in terms of their ownership and not in terms of their control. So a company, where the state holds any equity, is considered a state-owned enterprise. This means that even if 99% of equity is held privately and 1% is held by a state organ, the entire enterprise is classified as an SOE. He argues we also have to include those enterprises, where the majority or dominant owner is private. If we examine all loans, i.e. short-, medium-, and long-term, to the private sector, i.e. POE and privately-controlled enterprises, these loans account for 36% of total outstanding loans. This would also provide a part explanation of why the World Bank Investment Climate Survey (2012) found that only 2.9% of surveyed firms find access to finance as a major constraint on their business activity.

The omnipresent and omnipotent state is a key characteristic shaping China's financial system. It has a firm grip on the financial system, through direct ownership of the largest commercial banks. This leads to the country's very specific multiple-principal problem and ultimately the SOE lending bias. With a large proportion of the country's banking assets held in the hands of just a few banks, the problem is further amplified. In order to grasp the extend of this issue, it is important for us to look at China's banking landscape.

3.1.3 Commercial Banks

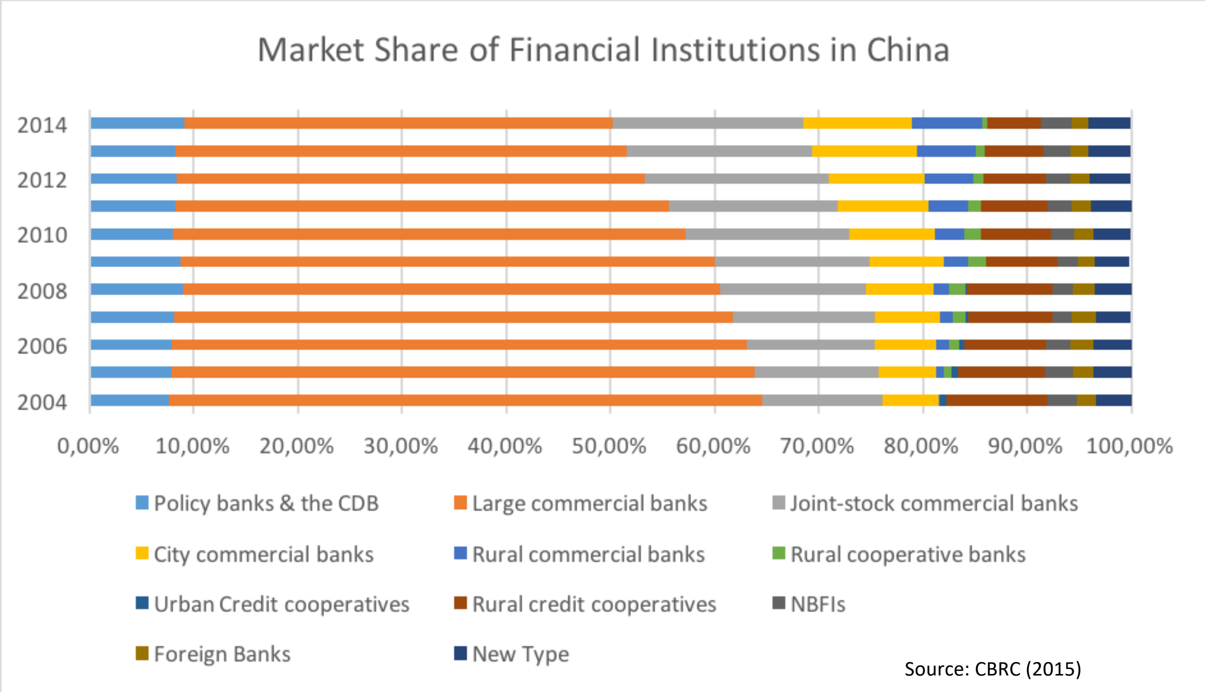

Diagram 4 – Market share of groups of financial institutions in China

Having understood the path of development that the banking sector has taken since 1978 as well as the role of an omnipresent state leaves us with a need to examine the status quo. Who are the major players in China's banking sector today? The diagram above outlines market share measured in share of the total assets of the banking sector of each group of different institutions between 2004 and 2015.

The largest banks in both relative and absolute terms are the *Large commercial banks*, or state-owned commercial banks (SOCBs). Between them, they controlled 71.014trn RMB in 2014. The asset growth in the ten years following 2004 has been remarkable. SOCBs were able to grow their assets by over 440%, from 16.051trn in 2004. Their absolute growth is astonishing and does cement the widely held view that they are the most powerful banks in China. The state is the direct owner and regulator of SOCBs, so this fact alone is little surprising. What is interesting nonetheless, is that their power in relative terms is declining as has been steadily and significantly in the same period. In 2004, they controlled 58% of all bank assets but ten years later only controlled 41.21%. This would go against the view that the regulatory environment is heavily skewed in favour of SOCBs and does not promote competition between different types of commercial banks.

The second largest group of banks are Joint-Stock Commercial Banks (JSCBs). These banks were set us a joint-ventures between SOEs and private investors. In contrast to SOCBs, the last ten years have been successful for them in both absolute and relative terms. Between 2004 and 2014, they experienced a tenfold asset growth, from 2.96trn RMB to 31.38trn RMB. At the same time, they were able to grow their assets share from 10.7% to 18.2%.

The third largest group of banks are City Commercial Banks (CCBs). Initially confined to a certain city, these banks were set up as local banks with a very limited geographical scope. They too have experienced large relative and absolute asset growth. From 1.46trn RMB in 2004 to 18.08trn in 2014. They expanded their asset share from 5.29% to 10.49%.

As we can see from the diagram above, all JSCBs and CCBs have been able to expand their asset share and thus expand their market share. Depositors as well as borrowers have turned away from SOCBs and towards other commercial banks in the last decade. There is one exception nonetheless: foreign banks. Foreign banks have not been able to expand their asset share. Despite the fact that many thought foreign banks would induce more competition o the Chinese banking sector, the effects are not measurable. Even China's membership of the WTO did not lead to an increase in market share for foreign banks in China.

3.1.3.1 State-owned Commercial Banks

The first reform phase saw the creation of four powerful state-owned commercial banks – the *Big Four*. These were the Agricultural Bank of China (ABC), the Bank of China (BOC), the China Construction Bank (CCB) and Industrial and Commercial Bank of China (ICBC). These four institutions have immense important for China but also the rest of the world. As I have pointed out before, they are the biggest four commercial banks in the second largest economy in the world. In addition, they are also the four largest banks in the world. (Forbes, 2015). While traditionally, these four banks have been referred to as the *Big Four,* the CBRC began to include the fifth largest bank, the Bank of Communications (BoCom) in the same group and groups them as *Large Banks* (CBRC, 2015). In my view, this inclusion is problematic. As we can see in the table below, BoCom has a totally different degree of state ownership. Furthermore, its total asset share is far below that of the smallest of the Big Four. However, in the interest of producing comparable findings, I have included them in the discussion.

	ABC	**BOC**	**BoCom**	**CCB**	**ICBC**
State ownership	84.52%	70.13%	37.67%	59.88%	71.33%
Total Assets (billion CNY)	17,791	16,816	7,155	18,349	22,210
Market Share	8.93%	8.44%	3.69%	9.21%	11.14%

Source: ABC, 2016; BOC, 2016; BoCom, 2016; CCB, 2016; ICBC, 2016a

Table 4 - SOCB Ownership Structures in 2015

Although ownership has diversified especially since all of the SOCBs became publicly listed enterprises, the majority of equity is still held firmly by the central government. Shares are either owned through the Central Huijin Investment Co. (Huijin)[8], the Ministry of Finance (MoF), or various other state-owned legal persons. This table shows the aggregate state ownership of SOCBs, based on the information published in each bank's annual report. Despite being listed companies, the complex shareholder structure as well as the complicated system of A, B and H Shares make it difficult to establish the actual degree of state control.

[8] Central Huijin Investment Company (Huijin) is a subsidiary of the China Investment Corporation, the sovereign wealth fund of the People's Republic of China. Huijin allows the central government to exercise direct control through owning equity in China's Large Banks.

For example, Central Huijin Investment Company Ltd is the controlling shareholder of the Bank of China. Additionally, through other state-owned legal persons like China Securities Finance Co. Ltd the state controls other shared. Lastly the National Council for Social Security Fund holds H-Shares in Hong Kong. Analysing the different annual reports of the five Large Banks and the disclosed shareholder information has allowed me to establish to some degree the level of actual state ownership.

This table further shows their asset share of the total banking sector assets. In 2015, the *Big Four* and BoCom controlled 41.41% of the entire sector's assets. In comparison, the the largest genuinely privately-owned bank, China Minsheng Banking Corp. Ltd by itself only controls app. 2% (Minsheng, 2015).

The general literature review outlines four core functions of banks within the financial system: provision of liquidity, transformation of credit, term-to-maturity transformation and a better understanding in assessing the economic potential of an enterprise. Reviewing the existing literature on the functioning of SOCBs, we can see that they provide some of these functions. They certainly provide credit transformation and term-to-maturity transformation, as they take highly liquid deposits, pool them and extend them as loans to deficit-spending units. In this they also provide liquidity to said units. However due to the before-mentioned multiple principal issues and the selectivity with which access to loans is granted, it is there where we encounter the first shortcoming.

SOCBs extend the majority of loans to SOEs, due to the fact that both the borrower and the lender are state-owned entities. Loans extended to SOEs carry and implicit credit guarantee by the state.[9] Capital is therefore not directed to its most efficient use but rather to a a comparatively safer use. A loan officer told me that he does not like to extend loans to

[9] Interview BJ-14-11-001

SOEs, because they have a lower profitability, yet he is forced to do so '*because the state is always in the background*'[10]. The officer further highlighted that the only non-performing loan in his sub-branch are those extended to an SOE. If loan officers are incentivised or in other ways encouraged to extend loans to SOEs over POEs, this can have a severe impact on a banks ability to build up experience in assessing the economic potential of an enterprise. If banks lend to SOEs, because there are implicit credit guarantees, then this means that as institutions, they do not have to build up institutional capacity to assess the economic potential of an enterprise. These banks simply will not need to establish procedures for lending to POEs, because it is much easier to extend a large loan to an SOE. We could even argue that this is the most rational and logic decision, for the administration cost of multiple small loans are greater than of one large loan to an SOE. If this is true in a banking sector, which is heavily concentrated in the hands of a few large banks, then this has an adverse impact on those banks' ability to perform the function of a delegated monitor. This also begets the question that if the larges banks are unwilling or unable to provide POEs with funding, where to they get their funding from?

3.1.3.2 Joint-Stock Commercial Banks

JSCBs are commercial banks, in which the state holds an equity ownership next to other equity shareholders (OECD, 2006). Unlike SOCBs, which were spin offs of their departments in the PBOC, most JSCBs were established as commercial banks in the 1980s and 1990s (Cousin, 2011). Throughout China, 12 banks are classified as JSCBs. By the end of 2014, they controlled 18.2% of the banking sector's assets, vis-à-vis 41.4% controlled by SOCBs (CBRC, 2015). From the difference in market share alone, we can quickly estimate that their despite their importance within the sector, they are nowhere as important as SOCBs. All this

[10] Interview SH-15-03-001

is despite previous efforts to induce competition in the banking sector with the help of JSCBs. For example, they can open branches countrywide. Allowing JSCBs to operate countrywide should mean that both compete in similar regions and, partly, for a similar customer base. Chong et al (2013) finds that JSCBs target a different customer sub-set than SOCBs. JSCBs usually exploit a market-niche and specialise in it (Cousin, 2011). For example, China Minsheng Bank is heavily focused on SME lending, whereas Merchant Bank is more focused on Credit Cards.

The terms Joint-stock commercial bank and state-owned commercial bank suggest some form of dichotomy. It is important to note here that this is not necessarily the case and this choice of terms is potentially misleading. JSCBs are defined through a partial state ownership. They are meant to be joint-ventures between various state-owned actors and private enterprises. While this is true for all JSCBs, the degree to which they truly have private ownership can vary quite extensively. The examples of China Minsheng Bank and China CITIC Bank and their published shareholder structure illustrates this and is characteristic for the ownership structure of JSCBs. China Minsheng bank has a diverse shareholder structure. The only state-owned entity amongst its 10 largest shareholders is the China Securities Finance Corporation Limited, which holds 2.66% of all shares (China Minsheng Bank, 2016). China CITIC Bank on the other hand is an offspring of the CITIC Group, a well established state-owned enterprise. It hence comes at no surprise that it is the largest single shareholder, holding 67.13% of equity, while other state-owned entities further hold another 3% (China CITIC Bank, 2016). Both these banks fall under the category of JSBCs, despite the fact that in one the state owns 2.66% and in the other it owns 70%. We should hence ask if the concepts of JSCBs and SOCBs are an adequate analytical concept to analyse the two largest groups of banks in the world's second largest economy. An alternative is hard to suggest for establishing the exact degree of state ownership of JSCBs is a difficult task. Firstly, the degree to which JSCBs publish the nature of their 10 largest shareholders varies largely. Some identify the state or other state-owned legal persons clearly. Others, like Bohai Bank or China Zheshang Bank do not.

Secondly, JSCBs often have amongst their 10 largest shareholders non-state legal persons, which are in turned owned partly by the state. The case of China Everbright Bank serves as a good example here. Its largest shareholder is China Everbright Group, which holds 23.69% of all shares. Huijin owns a further 21.69%. Domestic Legal Persons, e.g. China Life Reinsurance Company Ltd., hold further equity in the China Everbright bank. Huijin, as the central governments investment company, further holds equity in all of these. It holds a controlling stake in the China Everbright Group and China Reinsurance. In total that means that only 44.42% of share are held by public shareholders (China Everbright Bank, 2016). The degree of state ownership is still considerably lower in China Everbright Bank than in China CITIC Bank but significantly higher than in Minsheng Bank. Based on publicly available information alone, it is a breathtakingly enormous task to truly establish the extent of state ownership of the banking sector in China.

The degree of state ownership of JSCBs is important for a variety of reasons. Firstly, it highlights the shortcomings of the SOCB vis-à-vis JSCB dichotomy. JSCBs should in theory be in co-ownership between state and non-state owners. While this is the case for some of them it certainly is not for all of them. When we examine the ten largest shareholders of SOCBs and JSCBs, we can discover that the degree of state ownership is higher within JSCBs than within some SOCBs. For example, China CITIC Bank has 70% state ownership, while CCB has below 60%. Both are in fact state-owned commercial banks. Secondly, based on this it would suggest that the degree to which multiple principal conflicts are prevalent in SOCBs might also further extends to some JSCBs too. It is important to note here that in the case of SOCBs, it is mostly the central government that directly controls the equity share. In the case of JSCBs it is often through a proxy that is an SOE. This indirect ownership, if we can call it that, does have a direct impact on the prevalence of an SOE lending bias and commercial concerns.

The above mentioned CITIC bank is such a case. It would be foolish to assume that the interests of the CITIC Group and of the central government are automatically and always congruent. After all, CITIC has worked hard to establish itself as a leading bank in the Chinese banking system, focusing on both personal and commercial finance for a broad range of customers. The CITIC Group might rightly run its bank as a profit-maximising business. Still, the degree of state ownership does expose the bank to the risk of interference of the state and the party apparatus. Such a risk is much smaller in the case of a bank like Minsheng, where only one SOE has a minor stake.

To sum it up, the classification of banks in SOCBs and JSCBs is somewhat misleading for a three reasons. Firstly, the degree of state ownership varies largely across JSCBs. Certain JSCBs have an even higher degree of state ownership than some SOCBs, while the state is a small minority shareholder in others (see China CITIC Bank vis-à-vis Minsheng Bank). Secondly, the different institutions within this group vary largely in size. Thirdly, the various institutions grouped under the term JCSB are equally diverse, when we look at their profitability. For example, China Merchant Bank and Minsheng Bank for example have a healthy return-on-assets (ROA) of 1.05% and 1.02% (China Merchant Bank, 2016; Minsheng Bank, 2016). Banks like China Zheshang Bank or Bohai Bank have ROA rates of 0.68% and 0.74% respectively (Forbes, 2016). All four banks are JSCBs with very different market shares, ownership structure and profitability.

Having discussed why JSCBs as a group are very diverse, we ought to note that they have one central feature in common: JSCBs are much more likely to be involved in POE finance, in particular SME finance, than SOCBs. Part of the niche strategy previously noted was born out of the necessity to target a completely different customer sub-set than the SOCBs. By the time JSCBs appeared on the banking landscape, SOCBs had already developed close working relationships with large corporations, so JSCBs had to work with SMEs and help them grow[11]. The reason they were often able to do that was their different ownership structure (Chong et al, 2013). This would mean that although it does exist, the multiple principal conflict is much less severe in JSCBs than in SOCBs.

JSCBs could therefore be a valid solution to addressing the issues surrounding access to finance for POEs in China. Their niche market strategies have allowed them to supplement some of the functions, that SOCBs ought to provide. The problem is however, that bank-branch distribution is very different throughout China. Sufian and Habibullah (2012) analyse branch distribution and they found that despite some JSCBs opening branches throughout the country, they tend to congregate around particular regions. They do not offer a truly nation-wide branch network, contrary to most SOCBs. An industry expert pointed out that if they have not been able to do this thus far, rising real estate prices and staff costs are unlikely to allow it in the future[12]. This means that they can focus on those geographical areas that promise the highest return and do not have to burden themselves with loss-making branches. On the other hand, it also means that potentially lucrative borrowers might not be able to access loans provided by JSCBs, because they are based in areas, where they do not operate. JSCBs tend to have more flexibility over lending interest rates. Therefore, even if they do engage in more SME and POE lending, their ability to service the whole market is limited by their geographical scope.

[11] Interview NJ-15-07-001
[12] Interview NJ-14-12-002

Despite the advantages of some JSCBs, which can operate like private profit-maximising and creatively destructive commercial entities, their ability to actively challenge the role of SOCBs seems to be hindered by one common feature: lower market share. The largest banks in China are the *Big Four* and BoCom, with JSCBs ranking second. With total assets of 5.474trn RMB, the largest JSCB in 2015 was China Merchant Bank (China Merchant Bank, 2016). This translated into an asset share on banking assets of 2.75%. We can compare this to the smallest SOCB, the Bank of China. BOC has a market share of 8.44% - three times the size of China Merchant Bank. We can take from this that the distinguishing feature of JSCBs is their relatively lower market share. It is important to note nonetheless, that within the group of JSCBs the size of each different bank varies immensely. If we take the Tianjin-based Bohai Bank for example. In 2015, this JSCB held total assets of 0.764trn RMB and had a market share of 0.38% (Bohai Bank, 2016). This illustrate the vastly different institutions, that all come under the term JSCB, with the largest JSCB being seven times the size of the smallest JSCB. The case of Bohai is further interesting, because it is actually smaller than some CCBs.

Lastly, many JSCBs have very rigid procedures, which are geared towards servicing a few large clients than many small borrowers. Despite the fact that there are loan quotas for SMEs, banks tend to favour large SOEs and POEs. Regulation should in theory compel banks to lend to a larger variety of borrowers, but it does not. As a JSCB loan officer pointed out '*regulation is regulation but the actual business is the actual business*'[13]. The government is actively encouraging all banks including JSCBs to lend to SMEs and more POEs. However, when this regulation is implemented, banks still favour lending to a large POE than too many SMEs. From the perspective of the individual bank, this is a very economic decision, for the cost of

[13] Interview SH-15-03-001

due diligence in a loan application is likely to be similar, whether the amount of the loan is small or large[14].

Revisiting the four core functions of banks within the financial system and relating them bank to the role player by JSCBS, we can argue that most of them provide said functions for the Chinese economy. They provide credit and term-to-maturity transformation. They provide liquidity. In the case of banks, which are heavily involved in POE finance, we can also say that they provide the function of a delegated monitor. Loan officers at Minsheng Bank for example are encouraged to assess local businesses at a sub-branch level before those businesses seek a line of credit (Zhang, 2013). In other cases, especially those institutions with a high degree of state-ownership, one could expect the multiple principal conflict might be inhibiting the banks ability to provide this core function. Then this would result in the same negative externalities, i.e. poor protection of depositors' and shareholders' interests and poor access to lines of credit for POEs.

3.1.3.3 City Commercial Banks and Foreign Banks

Despite the high degree of concentration in the banking sector, further smaller banks also exist in Mainland China. This last section will further look at two more types of commercial banks: City Commercial Banks (CCBs) and Foreign Banks (FBs). These two types of banks are discussed together not because they bear much resemblance in ownership structure, size or market share but because both for their very own reasons cannot pose significant competition to SOCBs or JSCBs. This means, that even if they do not exhibit a lending bias, their ability to change the systemic bias is severely limited by their size and market share.

City Commercial Banks (CCBs) originally developed out of urban credit cooperatives (Chong, 2013). There are currently 133 different CCBs operating around China with a total

[14] Interview BJ-14-11-001

market share of 10.49% (CBRC, 2015). Their predecessors, the urban credit cooperatives developed in the 1980s to meet a growing demand for financial intermediation between surplus-saving units and urban small borrowers. They rose to immense importance in subsequent years. In 1996 they accounted for app. 75% or private sector lending (Tsai, 2002). Due to the poor management of these urban credit cooperatives and and a subsequent non-performing loan problem, the PBOC ordered urban credit cooperatives to merge (Sun et al, 2013). The different cooperatives were to merge to form one bank per city. The resulting join-stock companies had local governments, urban collective and privately own enterprises as well as former cooperative members as their shareholders.

Because of their shareholder structure and their role as the suppliers of capital to POEs and SMEs, they continue to focus largely on SMEs (Chong, 2013). My research supports this, for CCBs are often referred to as supporting local enterprises and their development[15] or being a lot more familiar with local enterprises, than other forms of commercial banks[16]. The problem is just that their overall market share is too small to alleviate the negative externalities, i.e. the shortage of funding for POEs and SMEs, cause by large banks' SOE lending bias.

In their comparative study, Jiang et al (2013) found that CCBs by large have are more profit efficient than the SOCBs or JSCBs. Sufian and Habibullah (2012) argue that CCBs tend to have a better relationship with local business fraternities and retail customers. Until 2006, CCBs were only allowed to operate within the city, where their HQ is based (Sun et al, 2013). As these restrictions were phased out, many CCBs began venturing beyond the boundaries of their respective cities. Today, we can find branches of various different CCBs throughout China,

[15] Interview NJ-14-12-008,
[16] Interview NJ-14-12-002

often far away from their initial home base. As with JSCB and SOCB, the term CCB is hence somewhat misleading. First, many of these CCBs now operate nation-wide. It is not uncommon to see branches of the Bank of Beijing in provinces across the country. Second, many CCBs are joint-stock companies. This means their shareholders include local governments, private enterprises, and foreign investors. Their history might be different, but to a certain extent they too are joint-stock commercial banks. Third, the term City Commercial Bank vis-à-vis Joint-stock Commercial Bank somewhat implies, that the former is smaller than the latter. This could not be further from the truth. For example, in 2015 the Bank of Beijing had total assets of 1.67trn RMB, which amounts to a total market share of 0.84%. Bohai Bank, a JSCB, had total assets of 764bn, which amounts to a total market share of 0.38%. The Bank of Beijing is thus almost twice the size of Bohai Bank, despite one being a CCB and the other being a JSCB.

It is very important to highlight that the current terminology is vague and does not satisfactorily address the important structural variances between the different institutions. If we revisit the core functions of banks once more, we can certainly see that CCBs provide liquidity as well as credit and term-to-maturity transformations. Because of their diverse ownership structure and their institutional legacy as urban credit cooperatives, they further seem to also have a better understanding in local enterprises and as such provide the function of a delegated monitor. The only issue is that their total asset share and their geographically fragmented business scope means that they cannot effectively provide this function for the entire economy.

Foreign banks in China are also included here to demonstrate their lack of ability to challenge and creatively destruct the current status quo in the Chinese banking system. After China’s accession to the World Trade Organization, the banking sector was gradually opened to foreign banks. Foreign banks operating within China may now offer a wide range of banking services, such as deposit taking, financial leasing, payment and money transfer services and all lending activities (Cousin, 2011, Yao et al, 2007). Following this influx of foreign banks, many feared that foreign banks would ultimately take over the market (Huang et al, 2013). Despite the disappearing discriminatory formal barriers to entry, Chan et al (2014) points out, the effects of this are yet to be seen. Between 1998 and 2010, the market share of foreign banks stagnated (Huang et al, 2013). If we examine more recent years, between 2004 and 2014, asset share of foreign banks fell from 1.84% to 1.62% (CBRC, 2015). Despite the changes that the WTO membership induced, foreign banks have not been able to make use on these new opportunities.

While they have been able to expand their assets, they have not ben able to improve their position in the market. Interviewees have highlighted two possible: the lack of local knowledge of the financial landscape and the discriminatory application of existing regulation[17]. The lack of local knowledge is often paired with procedure, which are geared towards other markets. For example, if one applies for a loan at one of the largest foreign banks in China, the approval process is centralised in Hong Kong. Therefore loan approval times are the same as for domestic banks[18]. Furthermore, regulators tend to enforce regulation much more rigidly on foreign banks than on national banks. As the former executive of a large foreign bank in China pointed out, that foreign banks often face the threat of having their licence revoked, when national banks do not[19].

Because of the structure of the financial system and the uneven competition of national banks, most foreign banks pursue niche strategies in China. The two key issue that

[17] Interview NJ-14-12-001, BJ-14-11-002
[18] Interview BJ-14-11-002
[19] ibid.

Chan et al (2014) identify are a lack of distribution channels and the emergence of new NBFIs that operate outside of the regulatory framework. The lack of distribution channels is mainly due to China's geography. Rolling out an extensive network of branches and sub-branches is a costly and potentially unprofitable venture. Focusing on geographically limited areas is therefore a more cost-effective strategy. Pursuing this strategy also means a more limited access to bank deposits. Moving the operations away from traditional physical offices to an online-based system would certainly have been an option. Due to the arrival of new NBFIs, e.g. Alibaba's Alipay or Tencent's WechatPay, which are not bound by the same rigid regulations as traditional banks, would put foreign banks entering the same space at a major disadvantage. Foreign banks do therefore provide some of the functions that banks ought to provide to an economy, however to to their limited market share, they cannot be seen as providing this service to the entire economy.

3.2 Chinese Financial Markets

Regardless of their relative significance, we cannot and must not ignore that China is also home to impressive financial markets. The following section will therefore serve as an introduction to the Chinese financial markets, which will remain brief as the financial system is bank-based and even the most recent reforms in China have done little to fundamentally alter this key characteristic. Albeit shadow financial markets have existed in China, especially in Shanghai during the Republican era, they certainly do not play a significant role today should they still exist.

The main financial markets in China are the two equity markets, the Shanghai Stock Exchange and the Shenzhen Stock Exchange. In addition to those, bond markets are developing in China. Commodity or derivative markets are however of lesser significance in terms of size. They will not be discussed as their contribution to financial systems design theory and the role they play within the Chinese financial system are negligible.

3.2.1 Equity Markets

Equity markets provide long-term funding for enterprises in return for the sale of equity (Farell et al, 2006). During the Maoist era and before China's opening, there were no financial markets under the planned economy. While banks were needed as allocators of funds and safe storage places for deposits, there was no use for financial markets in an economy, where the state owned all enterprises and factors of production. Enterprises were state-owned and there was no private ownership of commercial entities. Albeit commercial banks were established and developed throughout the 1980s, financial markets were not. It was not until 1990, that the Shanghai Stock Exchange (SSE) was founded. It was soon to be followed by the Shenzhen Stock (SZSE) exchange in 1991. The goal of developing equity markets was to provide access to funds for SOEs and thereby taking pressure of the banking sector. To cope with the new regulatory tasks that these securities markets produced, the State Council established the Securities Committee of the State Council and the China Securities Regulatory Commission (CSRC) (Li, 2015).

Diagram 5 – Market Capitalization of Mainland Chinese Stock Markets

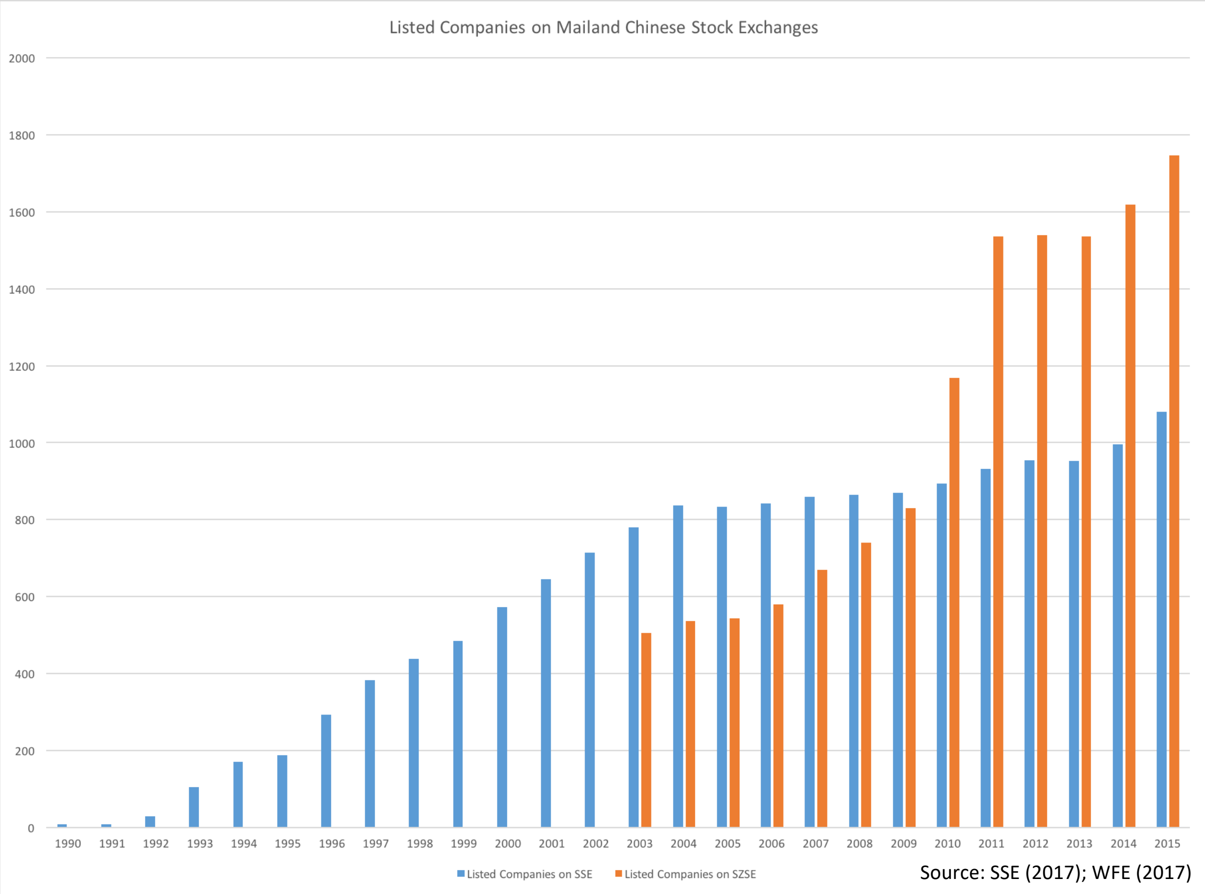

Diagram 6 – Number of Listed Companies on Mainland Chinese Stock Markets

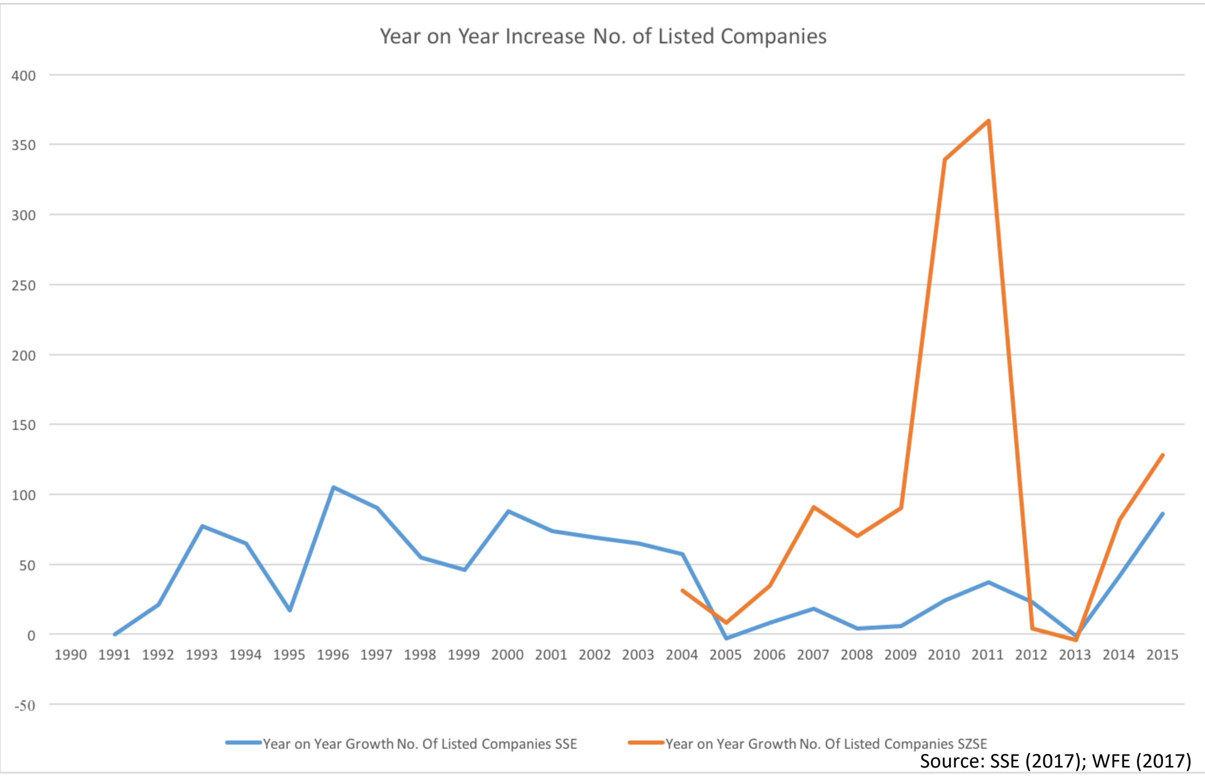

Diagram 7 – Year on Year Increase of Total Number of Companies listed on Mainland Chinese Stock Markets

Diagram 5 shows the market capitalization in 100m RMB of both the Shanghai Stock Exchange (SSE) and the Shenzhen Stock Exchange (SZSE). For the SZSE data is only available after 2003, while the SSE has published all historical data since its conception. Judging from data available for the 1990s, we can see the Chinese equity markets developed slowly during the early period and developed more rapidly after China's accession to the WTO in 2006. As many other financial markets across the globe, Chinese equity markets did experience in influx of capital prior to the global financial crisis as well as a stark slump following it. In the case of the SSE, it has since recovered, whereas the SZSE has grown significantly. In 2008, it market capitalization was app. 2.411trn RMB and rose to 23.611trn RMB at the end of 2015. The reason for this immense growth rate of almost 980% within seven years, was the launch of an SME board as well as a new trade link between the Hong Kong Stock Exchange and the SZSE, which allowed international investors to invest in mainland Chinese shares through Hong Kong. Overall the SSE is still almost 25% larger than the SZSE in terms of market capitalization.

As we can see in Diagram 6, by the end of 2015, there were 1081 companies listed on the SSE and 1746 companies on the SZSE respectively. So despite the SSE being larger in terms of their market capitalization, the SZSE is larger in terms of the total number of listed companies. What is truly striking in the comparison is the remarkable growth rate of listed companies on the SZSE. This is due to the same factors that caused a significant growth in market capitalization, namely the SME board, which allows small and medium enterprises to go public easier, as well as the increased trade links with neighbouring Hong Kong. International investors can therefor more easily invest in companies traded on the SZSE. We can further see this in Diagram 5, which shows the year-on-year increase of listed companies in both stock exchanges in China. While the annual growth of listed companies on the stock exchange has slowed on the SSE, the SZSE has seen significant growth since the end of the last decade. Both stock markets experience a decline of listed companies in 2013, following general turmoil on China's stock markets and fears over their general performance. Judging from the indicators, we see that China has a rapidly developing financial equity market, which should therefore provide at least some of the functions that equity markets provide in a financial system and allow entrepreneurs to get access to the type of finance that it provides. It does, however, do very little to improve the overall access to finance for smaller POEs.

The development of financial markets should allow larger enterprises to seek finance through those markets and therefore allow greater finance for all (Beck et al, 2005). Larger enterprises should be able to gain access to large amounts of capital and therefore rely less on bank loans. Banks therefore have more capital to extend as loans, which should benefit especially smaller borrowers. Overall, equity markets prevent the crowding out of smaller borrowers from the market for bank loans. Farell et al (2006) note here, that despite their size, financial markets in China give large enterprises too few alternatives. Sufian and Habibullah (2012) have also noted the importance of the equity market is limited, with only 5% of corporate funding coming from equity issuance. As 95% of corporate funding still comes from bank loans and banks favour large enterprises, we can see that they are still crowding out smaller lenders. In an attempt to see why, Xu and Lu (2011) have argued that regulatory barriers make it immensely difficult to obtain finance through the equity markets in China. Durnev et al (2004) say that comparatively to other transition economies, China's stock market performs poorly, due to weak property rights, corporate opaqueness and political rent-seeking.

The reasons for China's relatively small financial markets are manifold (Huang, 2013). First, China's equity markets are heavily regulated. Apart from the complicated share structure, access to equity markets is heavily regulated. Farell et al (2006) point out that the driving momentum behind the markets' creation was a drive to implement government policy, namely raising funds for SOEs, which was disguised as privatisation. Therefore, many poorly performing companies are publicly listed. Similarly, Ayyagari et al (2010) points out that the role of the Chinese equity markets has been largely that of a vessel for SOE privatization. In the beginning, the initial public offering process was controlled by the government in almost its entirety. Another reason is that China's largest and most profitable companies often prefer to get listed overseas. This phenomenon has often been referred to as 'P Chips' (Huang, 2013). These are Chinese companies, incorporated and listed outside China. If we take the largest IPO of a Chinese company, Alibaba as an example. An immensely successful Chinese firm chose to go public not on the mainland Chinese markets or the HKSE. They rather sought out go get listed on the New York Stock Exchange (NYSE), resulting in its largest IPO to date. The reason for this is certainly the ability to use it as an access to a larger pool of investors. Due to its transparency, rules and regulations, investors tend to prefer NYSE over the domestic Chinese markets. Furthermore, going public on an international stock exchange like the NYSE exposes a company to international standards of accounting and corporate governance. This one of the key benefits of a well-functioning stock market. The downside of this is that smaller and riskier companies, who shun exposure to international accounting standards, will go public on the domestic Chinese markets (Farell et al, 2006). This means that domestic investors, who often only have the choice to invest in the domestic equity markets due to capital controls, will be forced to invest in shares with inferior returns and sometimes questionable quality. This begets the question, where investors would turn in order to invest with moderate or higher return. The lack of investment opportunities due to the structure of the financial markets may well fuel the growth of alternative investment opportunities elsewhere.

The lack of institutional investors in the Chinese stock markets is another reason for their underdevelopment. Yao et al (2014) points out that in 2008, over 99% of all A shares and were held by retail investors and only with only 0.08% being held by institutional investors. Institutional investors serve two main purposes. They provide liquidity to the market and they tend to ensure that share prices are based on rational long-term future earning capabilities. Their lack of engagement in the Chinese equity markets therefore has two impacts: firstly, their absence limits the possible market capitalization. International institutional investors, e.g. insurance companies or hedge funds, so far shy away from investing the domestic Chinese equity markets and are actively kept out by quotas. Mainland Chinese shares are not included in leading indices, which means that institutional investors, which offer products that track indices, e.g. Exchange Traded Funds, will not invest. The absence of institutional investors on the Mainland Chinese markets further exacerbate monitoring and pricing issues. Monitoring and influencing corporate governance is significantly harder for individual investors with low degrees of organization, than institutional investors with potentially larger stakes in a particular company. A high degree of retail investors further leads to volatility in the markets and makes pricing of equity insanely difficult.

Chinese equity markets have demonstrated remarkable growth since their inception. They certainly provide the opportunity for some enterprises to go public and gain access to finance through the sale of equity. The turbulences in Chinese stock markets in recent years as well as popular anecdotal evidence of questionable businesses further seem to indicate that the equity markets do not provide the intended monitoring functions. This echoes my findings for the banking sector, which also does not provide the monitoring functions it ought to provide for the economy.

3.2.2 Bond Markets

Bond markets allow issuers to get access to longer-term capital in exchange for paying an interest at a rate that is below of what a bank would offer for a loan. Before China's opening under the planned economy, only a few bonds were issued. These were treasury bonds that people used as a form of saving and subscribed to out of patriotism rather than rational investment behaviour. Since the opening of China's economy this has changed. Huang et al (2013) explain that today, bonds are important for a variety of reasons: First, they are important for institutional investors to better match their maturity, manage risk, and manage liabilities. Second a well-functioning bond market would allow banks to diversify the risk of their holding. Lastly, it would provide an avenue for SOE finance outside of the banking sector, thereby liberating funds to be used for other forms of bank lending.

In China, there are six type of bonds traded: Government bonds, issued by the MOF, People's Bank of China paper, financial bonds issued by financial institutions or policy banks, corporate bonds, commercial paper issued by securities firms or POEs, and medium term notes. All of these bond types are also traded at the SSE or the SZSE. In 2014, the market capitalization of the Chinese bond market was 32.716trn RMB (ADB, 2017). Government issued bonds were worth 20.693trn RMB. Corporate bonds were worth 12.023 RMB. From this we can take that while the bond market is a fairly important source for the government, which sourced funding totalling 32.13% of GDP from them, they are much less so for the corporate sector. Corporate bonds only account for 36.75% of all bonds on the domestic bond markets. Ma (2006) and Suzuki et al (2008) both note that the total of outstanding bank loans is approximately 10 times larger than that of credit bonds. In 2014, the total of outstanding bank loans was 86.8trn, which means that the factor decreased slightly to just over 7 (CBRC, 2015). This demonstrates that while bonds have become somewhat more frequently used in the past 10 years, the bond market in general is still not seen as a viable alternative for corporate funding. The state of the bond market has led authors like Huang et al (2013) to denounce the corporate bond market as underdeveloped. It currently does not provide an adequate forum for firms to seek finance. This is especially true for small- and medium enterprises, which are currently unable to obtain funds on the bond markets.

3.3 Concluding Remarks

This chapter presents an analysis of the Chinese financial system using financial systems design theory. At the core of this chapter are three distinct findings. The first is that if we use the theory's binary distinction, the Chinese financial system has to be understood as a bank-based financial system. We can use two accepted indicators, total bank assets vis-à-vis stock market capitalization, to briefly illustrate, that China's banking sector is larger than the financial markets. In 2014, China's stock market capitalization as a percentage of its GDP was 74.384% (World Bank, 2016). While there has been some development since 2010, when market capitalization was 67% of GDP, it still falls short of rivalling the size of bank sector development in China (Huang, 2013). If we use just two of the indicators of bank-sector development and financial market development, bank assets as percentage of GDP and if we compare this indicator of China's financial market development to those for banking sector development, e.g. bank assets as percentage of its GDP, we can instantly see the remarkable difference. Even only the total assets held by China's large banks combined amount to 111.6% and hence significantly more than the entire market capitalization of the various stock markets in China (CBRC, 2015). These are two indicators to measure financial market development vis-à-vis bank sector development. They make clear that China has a bank-based financial system.

The second finding is that although other banks, namely JSCBs and CCBs have been very successful at expanding both their total assets as well as their asset share, the banking sector is still dominated by China's large banks. It was hoped that following China's full membership in the WTO and its associated pledges to phase out of protectionist regulation, foreign banks would be able to grow their operations in China. But these pledges have not been fulfilled, and their absolute and relative size remains inferior to the former three institutions. It is worth highlighting that this kind of separation of banks into different groups and the corresponding terminology used throughout the literature is misleading, as some JSCBs have a larger degree of state ownership than SOCBs and some CCBs are larger than JSCBs. Some foreign banks own stakes in SOCBs. The following discussion will focus on the lending bias favouring state-owned enterprises and how state ownership in the banking sector is actively enforcing it.

The third finding is that with the exception of some JSCBs and CCBs, the financial system falls short of expectations, when it comes to the provision of lines of credit and finance to POEs and in particular SMEs. The main reason for this is an ever looming multiple principal conflict within the five *Large Banks* and to some extend also in some JSCBs. Financial Markets further do very little to alleviate credit constraints of POEs. This begs the question that if not from banks or financial markets, where do enterprises get their funding from? Could there be another sector of the financial system, which supplements the functions of the two formal financial sectors, i.e. the banking sector and the financial markets?

Chapter 4: Shadow-Banking Sector in China

Most people will have a somewhat concrete understanding of the workings of banks and financial markets. They will easily grasp, what these institutions do and why they are important. When we examine the formal financial sector, it is easy to comprehend what constitutes it. The shadow banking sector does not give us the same amount of clarity. We can broadly define it as any bank-like activity taking place outside of the formal banking sector. To the uninitiated, this might sound nebulous and all-encompassing. Yet, it is precise in the way that it outlines the amplitude of different institutions, which make up this sector. Shadow banking, as this chapter will clarify, exists in every economy throughout the world. China is a special case however, due to the sheer size and the amplitude of institutions, which make up this sector. Estimates of the size ranged from 5trn to 46trn RMB in 2015 (Elliot et al, 2015). The International Monetary Fund (IMF) says that in that period, it amounted to over 40trn RMB or 66% of GDP (IMF, 2016). In 2014, total assets of the banking sector amounted to 270% of GDP and stock market development was just under 75% of GDP (World Bank, 2016; CBRC, 2015). While the shadow banking sector cannot rival with the banking sector, its size surely rivals that of the financial markets. Yet, to the general public the term shadow banking is and remains a rather abstract term. As we will discover in the course of this chapter, this in itself is hardly surprising, for often the formal banking and the shadow banking sector have linkages. Thus it is impossible to fully say, where the one ends and the other begins.

This chapter will now firstly engage in a brief discussion of different definitions of shadow banking by reviewing existing literature. It will then continue to highlight the integral importance of the shadow banking sector for the Chinese economy. This chapter will then first employ an *institutional approach* to understanding this sector, discussing the various institutions that constitute it. This is based on both existing literature and my own research. It is first necessary to grasp what actual institutions constitute this sector and how authors have attempted to classify them. Following that, I will seek to employ a functional approach to highlight, why understanding the different institutions that constitute shadow banking is inferior to understanding the functions they provide. Legality and status of institutions changes over time, place and modus operandi. Especially in the Chinese context, we might have different institutions of the same nature engaging in legal, quasi-legal and illegal actions. Lastly this chapter will introduce the key hypothesis of this thesis and its main contribution to the field of financial system design theory: the supplemented bank-based financial system. The case of the Chinese financial system suggests that if the absence of the formal financial sector's ability to provide the functions they ought to, the creative destructive powers of capital will find an alternative path through a third financial sector.

4.1 What is Shadow Banking and why is it important?

At first glance, the term *shadow banking* sounds like something out of a crime novel. It sounds more like informal finance and illegal banking, conducted in the shadows of the grey economy; just plain undesirable. Is this an accurate picture of what constitutes shadow banking or is this a grave misunderstanding of what this sector actually constitutes? This section will shed some light on why we refer to this financial sector as the shadow banking sector and what it is that makes it so important that we could not possibly ignore it.

The definitions for shadow banking are manifold. The most basic definition is provided by Gennaioli et al (2013: 1331), which defines shadow banking simply as '*financial activities occurring outside the regulated banking sector*'. This rather wholesome definition would encompass any financial activities, e.g. money lending or deposit taking, by institutions, which are not registered banks. Every institution, hard or soft, which engages in these activities, should then be classified as a shadow bank. The definition provided by the G20 Financial Stability Board (2014:1) echoes similarly, that shadow banking is '*credit intermediation* *involving entities and activities (fully or partly) outside the regular banking system'*. The emphasis here is that of credit intermediation, not merely financial activities. It further expands our understanding of what shadow banking is by adding that said activity can be carried out fully or partly outside the regular banking system. The latter element is very important, as this also includes activities, which are conducted partly in and outside the regular banking systems and thus involve formal banks. There is some linkage between the shadow banking sector and the other sub-sectors of the financial sector. Other definitions expand more on the functions provided by shadow banking, for example Plantin (2015: 146) defines it as all financial institutions belonging to the nexus, which perform the functions of traditional banks, i.e. loan financing with the issuance of money-like liabilities, while not being regulated as banks.

In their paper on the characteristics of shadow-banking in China, Guo and Xia (2014) provide an excellent and thorough discussion of existing definitions of shadow banking. They review the legal definitions of the FSB, the European Central Bank (ECB) and the Federal Reserve Bank of New York. They conclude that albeit the definitions vary slightly on some aspects, the common feature across all of them is that it encompasses credit intermediation that takes place outside of the regular banking system (Li and Xia, 2014: 391).

The most relevant definition for China is provided by the PBOC. The most relevant definition for China is provided by the PBOC, which reviewed different international definitions of shadow banking, concludes that the most widely accepted definition is '*credit intermediation engaged in maturity, credit and liquidity transformation, which cannot gain liquidity support from central banks or credit guarantees from public sectors*' (PBOC, 2013: 199). It has henceforth used this definition in its *Annual Financial Stability Report.* This last definition is important for two particular reasons. Firstly, as the most obvious reason, it is the official definition of shadow banking in China. It thus forms the backbone of what constitutes shadow-banking for the purpose of this study. It incorporates the aforementioned definitions and further expands on them by secondly adding a normative assessment. It incorporates, for better or worse, an assessment of the risks stemming from this sector. Shadow banking is not only bank-like activity outside of the formal banking sector. It is also potentially dangerous, for it could cause systemic risk or regulatory arbitrage. While the systemic risk stemming from a sector, which because of its definition includes institutions as diverse as financing companies, money market mutual funds or P2P lending platforms, remains to be seen, it is important to note that this is the only definition which explicitly takes it into account. In putting an emphasis on the very risk in relation to the benefits that this sector provides, this definition is distinctively different from others.

What all definitions, whether stemming from International Financial Institutions (IFIs), central banks or academia, have in common is that shadow-banking is defined in contrast to banking. To use a commonly known metaphor, if it quacks like a bank, but is not defined as a bank, it is a shadow bank. Therefore, any institution that engages in activities that resemble this but is legally not a bank, is a shadow bank.

Given the before-mentioned concepts of financial sector and financial system and the role that shadow-banking plays in China, I adopt the term “shadow-banking sector” to group all institutions of unregulated finance under one key term. Whether it is the internationally accepted definition or the China-specific definition, they all share that any institution that engages in credit intermediation outside the regular banking system is a shadow bank.

This dissertation has adopted a functional approach to analysing the Chinese financial system. If the formal financial system is not providing the functions it ought to, it begets an important question. Is the shadow-banking sector, with the functions it provides, is a distinct financial sector within the financial system? Does it form the third important sub-sector, next to the banking sector and the financial markets? Looking solely at any one or a handful of the specific institutions in this sector might run the risk of ignoring the supplementary function it provides to the system. For example, while informal finance[20] might suffice in the rural parts of China and for small- and microenterprises, it is debatable whether it does in urban China. Formal institutions[21], e.g. P2P lending, however equally supplement the existing formal financial sector. It is therefore vital to look at all institutions in the shadow-banking sector to generate comprehensive findings.

The shadow-banking sector includes both formal institutions, e.g. hedge funds, financing companies and P2P financing companies, as well as informal institutions. The modus operandi of these two different sets of institutions is likely to vary. Nonetheless, shadow banks also turn excess funds of surplus-spending units into capital supplied to deficit-spending units. In doing so, they support both investment and consumption. Surplus-spending units may choose to invest their excess capital in this sector, because it might provide higher returns on their investment rather than saving it in a bank account in a commercial bank. Deficit-spending units may borrow from this sector, because of convenience or because of a restricted access to formal bank loans or financial markets. Banks might also interact with this sector for regulatory arbitrage, for example to circumvent provisioning requirements or interest rate regulation. The vastly different institutions, which make up this sector, provide a large array of different functions to several other sectors of the economy.

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[20] *Informal finance* refers to the financial transactions, which take place outside any formalised legal framework, e.g. interpersonal loans.
[21] *Formal institutions* refer to shadow banks, which are formal institutions working inside an existing legal framework but outside of the formal financial system.

While the institutions may vary, Meade et al (2012: 2) define four core functions of shadow banking. First, the sector provides alternatives for investors to classic bank deposits. Secondly, due to a higher level of specialisation of the individual institutions within the sector, it channels resources more efficiently to specific needs. It further provides an alternative source of finance to the real economy. Lastly, it can possibly present a source of risk diversification away from the banking sector. What is striking is that existing literature has often only attempted to classify this sector by legality (Tsai, 2002) or formality (Elston, 2016), rather than approaching it from the function it can provide within the financial system. The most informal institutions and legally problematic institutions, e.g. those charging extraordinary interest rates, may employ a different *modus operando* than the more formal institutions. At the core, this raises the question, of whether this sector provides a function for the economy, by supplementing the functions provided by the other two sub-sectors? A more systemic analysis of the different institutions that constitute the shadow banking sector in China will be provided in the main part of this study. As they vary largely in terms of their legality, formality and individual scope of business, this simply warrants a separate sub-chapter.

Having discussed what shadow banking entails, we have to ask ourselves, whether having a large shadow banking sector in any given economy has a positive impact on the overall development of this economy. Can it contribute to an ideal allocation of capital or is it maybe more of a burden for development? Authors like Meade et al (2012) have argued that shadow banking has the potential to assist the financial system in its core function, which is guiding excess capital to its most efficient use. On the other hand, Tressel (2003) argues that financial systems that are not able to develop a functioning formal banking sector will eventually reach a point of a stable aggregate wealth level; in other words, economic growth will eventually stagnate. The issue here is that Tressel has looked solely at informal finance and ignored other forms of shadow banking. Informal finance is by its very nature reputation and relationship-based (Zhang, 2008). Therefore, it rewards personal networks and relationships, rather than entrepreneurial skill and initiative. This argument ignores, that financial innovation in this sector has led to the evolution of an array of institutions which are in fact heavily formalised and do not rely on personal networks. One example for this would be P2P lending platforms, which allow deficit units to directly acquire external finance from surplus-saving units with an online platform acting as an intermediary.

It is important to review here, that none of the definitions discussed include any aspects of legality. While Tsai (2002) for example has used legality as a dimension for mapping out institutions in shadow banking, this study places emphasis on the *function* of different institutions within the shadow-banking sector. These institutions come in various shapes and formats, from interbank-shadow banking, e.g. securitisation, to retail shadow banking, e.g. microloan companies. As the following sub-chapters will elaborate in greater detail shadow banking has been and continues to be at the very core of private enterprise finance in China.

Its importance lies in the function it provides. It exists both between banks, alongside banks, and the financial markets (Lu et al, 2015). For those parts of the sector, that exists within and between banks, it provides an important alternative for investors to bank deposits and it provides an alternative source of finance for the real economy (Meade et al, 2012). As we have discussed in great length before, Chinese commercial banks display an SOE lending bias. Whether we see the extent to which it exists as optimistic as Lardy (2014) or as pessimistic as Yiu et al (2013), no expert on China would doubt that the access to bank loans, capital from bond markets or from public listings is not severely affected by an all encompassing state ownership of capital as a means of production (Ahlstrom, 2015; Lu et al, 2012).

A rich abundance of literature sees in the this lending bias the very foundation upon which bank-like activities outside of the regular formal banking system have been founded. Jiang (2009) and Hsu (2009) say that due to the institutional constraints of the formal banking sector, POEs have to seek funding elsewhere. Private enterprises face four serious financial issues that they can only overcome through seeking financing in the shadow banking sector: They lack access to bank credit, often find it difficult to obtain finance from VCs, find it almost impossible to get publicly listed and often do not receive fiscal support.

Tsai (2002) has even credited the informal financial sector with providing much of the financing needed to fund China's impressive economic growth. Allen et al (2005) also found that there is an effective alternative financing channel outside the formal banking system, which supports the growth of the private sector, *shadow banking*. In their analysis of microcredit institutions in rural China, Turvey et al (2010) argue that informal finance has in the past had a comparative advantage of microfinance or formal bank loans. They argue that much of the microfinance sector in rural China cannot compete with informal finance, because loans are granted with low interest rates and at flexible terms.

Defining shadow banking is in itself an easy task. What is more difficult is filling this definition with actual examples. For the Chinese economy, the shadow banking sector is of great importance for the function it provides. The next section will now engage in an institutional analysis of this sector and discus the various shadow banks that we can find in China. The next section will then engage in a functional analysis of this sector.

4.2. An institutional analysis of the shadow banking sector

The *institutional approach*, when applied to the formal banking sector, focuses on existing formal financial institutions and the central bank as unit of analysis. This approach tends to provide a comprehensive overview of various banks, insurance companies, investment and pension funds as well as financial markets. It tends to be focused on how these different institutions interact within the financial system. Despite having been criticised for being too descriptive, this approach serves as a good starting point for our analysis. If we are to understand the Chinese shadow-banking sector, we first have to understand all institutions within it, just as we would with the formal banking sector. Which institutions make up this sector and can we group them in sub categories?

Discussion on the shadow banking sector in China have largely been centred around two dichotomies: illegal vs legal and informal vs formal. Ayyagari et al (2010) discus what they refer to as formal and informal finance in China. They highlight that formal finance typically operates with a state charter. It consists of financial intermediaries as delegated monitors, which typically lend with collateral. In order to enforce payment, formal financial institutions rely of formal judicial system to enforce their claims. Informal finance operates without a state charter. It consists of individual lenders, non-delegated monitors and institutions, for example rotating-credit-and-saving organisations. Lending here rarely requires collateral. Their activities are deemed illegal and thus they cannot rely on judicial system to enforce their claims. This dichotomy divides institutions and actors along the lines of legality. Formal institutions always act within the confines of the law. Informal institutions always act outside it. Yiu et al (2013) also use a definition of informal finance to analyse how alternative financing affects private firm performance. The definition is based on informal finance being based on reputation and relationships rather than formal contracts. In their opinion, this includes retained earnings, interpersonal lending, underground finance and trade credit.

Tsai (2002) classifies institutions in the shadow banking sector along three lines: legal, quasi-legal and illegal. Her work was one of the first attempts to classify the institutions of what she referred to as informal finance – the credit channels entrepreneurs in China created in the absence of formal finance. She already pointed out that these were a good starting point but had one inherent flaw. These classifications change over time and place. For example, at the beginning of the Millennia, pawnshops were illegal in some areas of China, while being legal in others. Interpersonal loans were technically not illegal, but professional credit brokers, who bring together borrowers and lenders, were highly illegal. Today, interpersonal loans are still legal and so are pawnshops, provided they only extend mortgages with physical collateral.

In Table 5, we have stuck to Tsai's classification for purely practical reasons. I have amended her table by the other institutions, which are frequently mentioned in academic literature and also used my own research. This chapter will introduce each of these institutions in order to clarify the maze of shadow banks that exist and provide some very important background knowledge of the sector in general.

Legal	Quasi-legal	Illegal
• Interpersonal lending • Rotating savings and credit associations • Pawnshops • Venture Capital Firms • Microcredit Companies • P2P Finance providers • Wealth Management Products • Off-balance sheet lending • Guarantee Companies	• Private funds • Microcredit Companies • P2P Finance Platforms	• Usurious Loans • P2P Finance Platforms • Microcredit Companies

Source: Elliot, 2015; Guo and Xia, 2014; Jiang, 2009; Kynge, 2010; Lu et al, 2015; Tsai, 2002; Yiu, 2013, own elaboration

Table 5 - Institutions in the Chinese Shadow Banking Sector by Legality

4.3.1 Legal Institutions

Interpersonal lending, the extension of lines of credit from one person to another individual, is in itself not illegal in China just like in most of the world. There are limitations on how much interest an individual may charge another without the loans being classed as usurious. Therefore, we find this institution both as *interpersonal loans* in the legal and as *usurious loans* in the illegal column. Usurious loans charge more than five times of the base lending rate set by the PBOC. We can immediately see, how this example calls into question the underlying classifications of formal vs. informal and legal vs. illegal. An individual lending money to a friend or relative works outside a state charter, as there are no private interpersonal lenders with one. If they have good personal relationship with the borrower, they might see this *Guanxi* as collateral[22]. However, if they might also ask for a valuable personal possession.

If the interest rate is below the threshold, this loan is perfectly legal and might be subject to a written agreement. To further protect his claim, the lender can even register the

[22] The concept of *Guanxi* as collateral for loans was frequently mentioned in my interviews by bother lenders and borrowers, e.g. NJ-15-05-001 and NJ-14-12-003

loan with the government through an interpersonal lending and borrowing service centre (民间借贷服务中心). As long as this loan is not usurious, the lender can choose to enforce their claim through the legal system. If we were to only classify lenders in terms of their formality, this example leads it ad absurdum. This is neither fully formal or fully informal, and as long as the interest rates stays within the legal limits it is a legal transaction.

Rotating savings and credit associations (ROSCAs), also called hui (会) in Chinese, are associations, where individuals pay in a set monthly contribution and receive the total sum on a rotating basis. The rotation is determined either by chance, the random ROSCA, or by bid, the bidding ROSCA. For example, 15 individuals pay in a monthly contribution of five RMB and one individual receives the 75RMB every month. In a random ROSCA, one of the individuals randomly receives the money until everyone has received it once. In a bidding ROSCA different individuals make offers for interest rates and the highest bid receives the entire amount. This goes to demonstrate that while we call this sector the shadow-banking sector, there are also more market-based institutions. The individual bidder suggests a price, i.e. interest rate, for the loan. Another bidder, who believes he can get a higher return through obtaining this loan might be willing to pay a higher interest rate and ultimately secures the loan. The interest rate is therefore set entirely by the demand for capital and thus resembles more a market than a traditional bank.

Other individuals who receive the funds later down the line are compensated for their waiting time by receiving a return on their investment through interest payments of other ROSCA members. This makes being a member of a ROSCA a very attractive investment, especially if it yields a higher return on investment than saving in the formal sector. ROSCAs were one of the financial institutions, which survived the Soviet style restructuring of the economy before the reform era. In those days, it was often used amongst factory workers to purchase consumer products, e.g. bicycles, which otherwise would have required a lengthy time for saving. Today, they continue to exist in rural areas, but do not make up a large part of the shadow banking sector. Most of them are informal institutions.

Pawnshops are entities, where a borrower uses a valuable possession as collateral to receive a loan. On pawning his possession, he agrees with the shop owner to later repay the loan plus interest and fees. He further agrees that on failure to do so, the pawnshop owner may sell his property to recover his losses. Pawnshops are legal in China and serve to a range of different businesses and private individuals. They are formal institutions and can use the formal legal system to enforce their claims. In recent years, technological advances have created new institutions, e.g. online pawnshop brokers. Rather than visiting a physical location to get a collateral appraised, individuals can use market platforms to submit pictures and receive offers from various pawnshops in close physical proximity. Pawnshops in China further do not only limit themselves to small objects like jewellery. Borrowers can also pawn cars or apartments to receive short-term and high-interest loans. The increased flexibility allows pawnshops to accept a greater range of collateral than traditional banks. Loan decisions are further made instantly and do not require a lengthy application and approval procedure.

Venture capital (VC) firms provide finance in exchange for equity. They technically do not take deposits and extend loans. Therefore, one could argue, that they do not perform bank-like functions outside of the regular banking sector and thus should not be included in this list. I have still included them in this analysis, because in the case of China, things are not as clear cut. VC firms use capital from investors. Therefore, they do to some extend take deposits, albeit being in the form of an investment. They then use these funds for an equity investment, rather than the extension of a loan. In China however we find that this is often

Mezzanine finance[23]. This means that a loan is treated as an equity investment. Furthermore, as my research has discovered, local governments use VC firms to address the lack of access of finance for small- and medium enterprises[24]. As the case of Nanjing will show, local authorities there have set up VCs for investment in high-tech growth-stage enterprises.

Microcredit companies (MCCs) were first introduced to serve those in the marketplace, who are unable to gain access to formal financial services. MCCs in China are by law non deposit-taking financial institutions. They may pool the assets of a limited number of investors and extend loans. They may also at times seek finance from the formal banking sector but are limited by very strict debt-to-asset ratios. In recent years the ability of microfinance institutions to acquire capital beyond their initial pool of investors has been greatly increased. Some of them have issued bonds on the capital markets or sought public listing. The group of MCCs further highlights the shortcomings of conventional classifications of shadow banking institutions along a spectrum of illegal versus legal or formal versus informal. These microfinance companies are legally operating institutions, which rely on formal contracts and operate with a state charter. They are regulated business entities and as such governed by commercial law in China. But there are also types of MCCs that are quasi-legal or illegal.

Within the nexus of microfinance in China, the Asian Development Bank (2014) identified four different business models with varying loan sizes and interest rates. One sub-set of MCCs are institutions, often with links to local governments, that emphasis on development and promote those goals through a broader access to finance. Then there are donor-supported MCCs, which usually have a development agenda. Their loan size tends to be relatively smaller, only around 50,000 RMB and they tend to charge slightly higher interest

[23] Interview BJ-15-03-001
[24] Interview NJ-15-06-001

rates. The total number of these institutions is lower than for the first category and they tend to focus more on rural than urban areas. These two subset of MCCs are perfectly legal and desirable institutions. They provide access to finance to those, who cannot qualify for loans. Their negative externalities, both in terms of macroeconomic risk and negative social impact, are low. The debt-to-asset ratios limit the risk for investors, if they are applied rigorously. As they rely on formal and legal ways to enforce their claims, they also do not tend to have a negative social impact, i.e. criminal activity in the process of pursuing an underperforming or non-performing loan. The third group within the MCC are institutions engaged in online peer-to-peer (P2P) lending. P2P financing platforms offer online credit mediation. They allow potential lenders and borrowers to exchange offers and mediate the transfer. Interest rates here exceed bank interest rates and the risk is substantially higher.

MCCs also include institutions, which operate more like formal fronts for illegal money lenders. Here the loan sizes range from 10,000 to 500,000 RMB, with interest rates as high as 40% per month. This somewhat leads of classification ad-absurdum. These are formal MCCs – regulated just like the former two. Yet with their high interest rates, their loans are clearly usurious. This means that they cannot pursue those claims through the formal legal system leading to potentially negative social externalities. If we are to group this MCCs using Tsai's three categories, they would have to appear in every single one.

P2P lending platforms are one of the most recent additions to the shadow banking sector. The underlying concept, the extension of a loan directly from one individual with funds to a person without it, is not new. In fact, interpersonal lending is nothing but offline P2P finance. These are online platforms just took a century old system to the 21st century. They mediate the exchange of information and funds from potential lenders to borrowers and vice-versa. They provide information to the lender about the borrower and are therefore aiming at providing more transparency. Until as recently as 2016, this sector was entirely unregulated. There were no entry requirements, industry standards or supervisory authority. This lack of a regulatory environment does explain the why there are almost 3000 different institutions in this market place, with very varying effects on surplus-spending, deficit spending units, and the economy overall. Before the introduction of a regulatory framework in 2016/2017, P2P lenders claimed to be operating on the same legal basis as interpersonal loans. Founders of platforms would often legally borrow the money from the lender and extend the loan to the borrower personally. In the next step, they would sell this debt obligation back to the initial lender. Because of this administrative trick, regulators in China were not entirely certain which agency was meant to supervise these platforms and on what legal basis. Furthermore, many of these platforms were pooling assets, meaning that the money given to the platform by the lenders would not be matched with one specific loan.

In many cases this also meant that P2P platforms became giant pyramid schemes. The revenue generated by new investors was paid out as interest to existing investors. Unfortunately, this had not been an isolated incident and by the end of 2015, over 30% of platforms had been classified as ‘problem platforms’, meaning that repayments had stopped entirely, there were active police investigations, or the founders had absconded with the funds (Chorzempa, 2016). By the middle of 2016, the number of problem platforms had risen to 1778 or 43% of all platforms and the regulatory agencies introduced newer strict regulation for the industry (Wildau, 2016).

New and stricter regulation included a ban on pooling of assets, a ban on interest or investment/deposit guarantees, ceilings on the amounts that deficit-spending units can borrow, and ceilings on the amounts that surplus-spending units can lend through P2P platforms. While all of this sounds somewhat alarming for the instability that it suggests within the remaining P2P platforms, we should emphasise that the entire outstanding loan amount at the end of 2016 from all remaining platforms was 816.2bn RMB, 1.09% of GDP, or 2% of the entire shadow banking sector. It is however an interesting case for our debate on formal versus informal and legal versus illegal debate. How do we classify these institutions? Following Tsai's grouping, we have to say that they too belong in various categories. Some of them are perfectly legal enterprises, which offer a valuable service to the economy. Based on the figures above however it would appear that at least 43% are not. P2P financing platforms are also formal enterprises, relying on contracts as the basis of their claims. Others are pyramid investment schemes and thus outright illegal. Some are also quasi-legal institutions, for they appear to abide by some but not all of the regulations set out by the government, e.g. pooling funds when they are explicitly instructed not to.

Wealth Management products (WMPs) can be seen as a form of security, without being covered by and regulated under the PRC's security law (Guo and Xia, 2014). The term wealth management in this respect is largely misleading for it might make us assume that this is a financial product for the wealthy of society. A variety of institutions in China issue WMPs: commercial banks, trust companies, investment banks, wealth management companies, fund management companies, insurance companies, and P2P lending platforms. As these securities are not regarded as such by law, there is no commonly available data for all products. In its Annual Report, the CBRC noted that commercial banks had issued 15.03trn RMB in wealth management products, which is equal to over 23% of GDP (CBRC, 2014). These products are not regarded as deposits and hence commercial banks can use the funds generated by their sale for investment without affecting their deposit-to-loan ratio. WMPs issued by banks are usually the tool for *off-balance sheet lending.*

At the point of purchase, many WMP investors do not know the underlying quality or composition of the assets in that product. Commercial banks can therefore move their loans off their balance-sheets into WMPs, much like they did with asset-backed securities before in the US before the financial crisis. The IMF as recently as last year has warned that WMPs have been used by commercial banks to move non-performing loans off their loan books rather than recognising them (Mitchell and Yang, 2016). The entire nexus of WMPs and off-balance sheet lending is therefore of great concern to the future of economic prosperity in China. If they had been bought by financially literate investors, this would be less of a concern, for they would have been likely to understand that and interest rate of approximately double of the annual deposit rate at commercial banks is likely to mean a riskier investment. As many retail investors have bought these products and often from banks, they often do not understand that these are not as safe as bank deposits. Despite the fact that they are not liable for WMPs, banks have in the past assumed liability and reimbursed investors for capital lost in a failed WMP. This has given investors the idea that they are liable after all. WMPs are formal and legal products. In themselves, they do enrich the financial landscape in offering more diversity in investment opportunities. However, they do carry an intrinsic and systemic risk for the entire system – much similar securities did in the US mortgage market in 2008. Different WMPs will have different underlying assets and business model. Some of these are simply securities, others a more like money-market mutual funds. Another category is also active in direct consumer loans and enterprise finance[25].

In addition to WMPs, there is a range of different forms of *off-balance sheet lending*. One such method is through the help of a *trust company*. As Lu et al (2015: 42) notes, a trust company is a '*uniquely Chinese financial institution*', which comprises elements of private

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[25] Interview NJ-15-03-003

equity, banking and asset management firms. Commercial banks cooperate with trust companies on certain projects. Investors seeking to invest in, e.g. a real estate project, will supply funds to a bank, which will in turn pass on the funds to the trust company. The trust company will in turn invest the funds in the pre-arrange project. Income from that investment will be directed back to the trust company, which will take a commission and pass on the funds for income distribution to the bank. The bank at no point is liable for this investment or has to disclose it, because it is simply acting as an agent for the trust company. Similar arrangements however slightly more complex is the cooperation between banks and security firms in China. These include a complex transfer or beneficiary rights to allow banks to lend to enterprises, which they usually would not been able to lend to, due to credit rationing restraints or deposit-to-loan ration requirements. The entire nexus of interbank shadow banking is a complex and interesting area. Future research in China would be duly warranted, especially since much of it is likely to bear intrinsic systemic risk for the world's second largest economy.

Although closely linked to the formal banking system, *guarantee companies* belong merely to the wider nexus. A potential borrower or enterprise seeks a bank loan. However, as it presents itself, it does not qualify for it. This may be the result of the quality of its collateral or the industry, that it operates in. Guarantee companies will assume the risk for default to the bank in return for a substantial fee – often a multiple of the annual interest rate. With this guarantee, the loan officer can approve the borrower's application. However, it has not been uncommon in the past that loan officers have deliberately send applicants to guarantee companies in order to personally profit from a commission paid by said guarantee company. Once again, this leads or classification ad absurdum, for credit guarantee companies themselves and the services they offer are not illegal. Their business practices however might be.

4.3.2 Quasi-legal institutions

Private Funds are unregistered investment funds, which are managed often by high net-worth individuals for other high-net worth individuals. In itself, this is not entirely illegal. As we discussed right from the beginning, interpersonal loans in are not illegal in China. As long as the interest rates charged for loans is not usurious, this should surely not be considered illegal. However illegal fundraising in China is a crime and a capital offence for that matter. Absorbing funds without approval, making use of public means of solicitation (incl. text messages), engage in the undertaking to repay the 'deposit' plus interest, and absorbing funds from the general public are considered illegal fundraising. Exact figures are hard to establish but high-profile cases in recent years have resulted in death penalties. What appears to be the difference is that successful funds will result in content investors and therefore unlikely in capital punishment for their managers.

As discussed in the previous section, *MCCs* and *P2P platforms*, can be grouped across all three groups, depending on their modus operandi and their shareholder structure. Technically, at the moment most of the *P2P* platforms operate in a quasi-legal state. The regulation passed in 2016 gives them a legal status. However, many have been slow in implementing the regulation. For example, all platforms are required to set up a custodian account with a qualified bank commercial bank. The aim of this is to reassure investors by including a commercial bank. Until January of this year, less than 10% have actually followed this law (Weinland, 2017).

4.3.3 Illegal Institutions

As noted when we discussed interpersonal loans in China, *usurious loans*, are illegal. Even if entered to in a contract, these claims are not formally enforceable through the formal legal system. Many of the reforms designed to formalise the shadow banking sector, e.g. MCCs or P2P platforms, have aimed to curb the power that loan sharks have over those without access to finance. The clear advantage that they have however remains: they offer an expensive yet flexible access to finance for the borrower. Illegal money lenders have been known to accept personal ID cards as a form of collateral for a short-term loan. It is needless to say that this creates an amplitude of negative externalities and risks for the lender and the borrower. Not only does the nature of this industry mean that the lender has to rely on non-formal and illegal ways to enforce his claims. It also means a very real risk to the personal safety of the borrower, should he be unable to meet his obligations on time and in full. Amongst the interviewees of this study, it was also mentioned that these individuals often form a network so they can pool their resources and extend larger loans. For very obvious reasons, this further amplifies the danger that this poses to society and the individual borrower. As discussed in the previous section, *MCCs* and *P2P platforms*, can be grouped across all three groups, depending on their modus operandi and their shareholder structure.

4.4. Functional Analysis

Before we understand the functions provided by the sector, we need to fully grasp and understand that there is a maze of different institutions in it. Some of these institutions cater towards the needs of surplus-spending units. Others cater towards deficit-spending units, providing much needed access to finance. Yet again others allow for regulatory arbitrage in a very tightly regulated financial system. The *functional* approach puts at the centre of analysis those functions, which a financial system provides. If we ask, how the shadow banking sector is supplementing the Chinese financial system, we must identity the functions that it provides, and the extent to which it provides these functions. Is the lack of which specific function of the formal financial sector a necessary condition for the shadow banking sector to flourish, and vice versa?

If surplus-saving units do not find investment opportunities in the formal financial sectors, which adequately reward their foregone consumption, they will seek opportunities elsewhere. In China, formal investment opportunities are limited severely by rules and regulation. Individuals and households have two main channels for investment available to them. They can either save their money in a bank account or they can buy residential property. Residential property, with its high degree of cultural significance, is attractive and home ownership rates in China are high. Additionally, Surplus saving units can further invest money in the domestic equity and bond markets. There are individual issues attached to all these common forms of investment. Firstly, savings accounts pay very low interest rates. These might be a safe way to save highly liquid assets for emergencies, but they do not offer an adequate form of investment. Housing is a profitable alternative to saving and the property price hikes in recent years, have made this lucrative. However, with a central government increasingly worried about the threat of an asset bubble, it has passed a range of different regulation to discourage individuals from possessing more than two properties. In the course of 2017 restrictions have become more restrictive, with some cities restricting the number of properties to one per household and other forbidding a resale for up to three years (Ye, 2017). Comments by President Xi Jinping at the 19th Party Congress, where he maintained that residential property should provide a living space for individuals and should not be used for speculation, further highlight that the attractiveness of buying property for investment is likely to further decrease in the near future (Reuters, 2017). Lastly investments in the equity or bond markets is tricky. Due to the high levels of retail investors in the market, there is a high degree of volatility and speculative behaviour, as demonstrated by the 2015 stock market crash.

Surplus-saving units hitherto have a low-risk/low-return option in form of savings, a medium-risk/medium-return option in form of real estate and a high-risk/high-return option in form of equity markets available to them. Shadow banking provides an important function here: an additional avenue for investment. Many, if not most institutions in the shadow banking sector, are perfectly legal formal institutions, e.g. so called wealth management products (WMP) or P2P lending platforms. They are regulated and some are further backed by large banks or insurance companies. Others are informal institutions with varying legal status. Depending on the product and institution, the risk and reward ratio and also the wider social externalities might very well differ amongst different institutions. The issue with classifying the different institutions along those lines, is problematic for many are highly nebulous financial constructs, while others are outright fraudulent. What unites all of these institutions is that all of them are united by the sheer fact that they perform bank-like functions outside of the formal banking sector. The functions that they provide to those with excess funds is the same. They allow for investment outside of the regulated banking sector and they allow a diversification of investment portfolio.

For the surplus-spending units, this sector is equally important for the function it provides. First of all, it often provides much needed access to finance. This reason might seem trivial, yet for companies seeking short-term access to lines of credit, banks in China are not necessarily the first point of call[26]. We have discussed in great length the SOE lending bias that many of the banks in China display. If banks prefer lending to large SOEs, then POEs have to seek finance from elsewhere. Judging by the increasing importance of the private sector in China, they do not only seek it but are also finding it. The formal financial sector appears to be ill-equipped to provide adequate lines of credit in a timely manner. Interviewees of this study have repeatedly said that a loan application for any amount takes between 30[27] to 90[28]

[26] Interview NJ-14-12-001, NJ-14-12-005, NJ-15-08-001, NJ-15-02-001
[27] Interview NJ-14-12-001, NJ-15-03-001, BJ-14-11-002, NJ-15-03-003
[28] Interview NJ-14-12-003

days Sometimes the loan approval takes up to one year[29] Even after this period, the bank might not approve the full amount required[30]. The approved amount is mainly dependent on the value of the pledged collateral. This means, that even if the bank approves a loan, the entrepreneur might still need to seek finance from the shadow banking sector in order to secure the amount required. Different institutions within the shadow banking sector will have different loan approval times, ranging from minutes, e.g. in informal finance[31], to a day, e.g. in P2P finance[32], to a few days, e.g. for loans from a microloan company[33] or a wealth management company[34], to a week, e.g. from a private fund[35]. The only outlier are venture capital funds, where the approval process and due diligence for equity investments can take months[36]. The latter is still lucrative for POEs because an equity investment does not incur costs for debt-servicing, i.e. interest. The other advantage over shadow banking over formal banking is the role of collateral. In the absence of a well-working credit rating system, banks in China further tend to provide lines of credit only if there is collateral. This means, that surplus-spending units with no access to collateral, guarantors or access to limited collateral will have to rely solely on the shadow-banking sector.

> *'There is a metaphor in the banking system: If it is sunny, the bank will give you an umbrella, but if it is raining, the bank will take the umbrella back.'* –
> *Incubator (Nanjing, 2015)*[37]

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[29] Interview NJ-15-05-001
[30] Interview SH-15-03-001
[31] Interview NJ-15-06-002
[32] Interview BJ-14-11-006
[33] Interview NJ-14-12-006
[34] Interview NJ-15-03-003
[35] Interview NJ-14-12-005
[36] Interview NJ-15-06-001
[37] Interview NJ-15-02-001

Generally, and in contrast to what conventional literature would suggest for a bank-based financial system, commercial banks are not seen as partners by entrepreneurs in China. The metaphor cited symbolises this quite well. Banks will not work with borrowers, if they encounter problems. So if a business is doing well, the bank will support it, but if it does not, it will simply withdraw its support. This begets the question to what extend banks can provide one of their key functions in a bank-based financial system: that of a delegated monitor. They are outsiders and thus far many have not been able to overcome the asymmetry of information that exists between the lender and the borrower. Some even feel, that shadow banks, e.g. microloan companies, are better suited at lending to POEs, because they will have greater knowledge of their business[38].

This creates a uniquely Chinese problem: Even if entrepreneurs have a line or credit from a bank, they are unlikely to approach the bank, if they encounter short-term cash-flow issues. Anecdotal evidence would suggest that whereas most commercial banks in bank-based financial systems would work with their debtor to allow business to continue, Chinese banks tend not to. In fact, as loan officers will freely admit, companies encountering cash-flow problems will not seek a bank loan from the formal banking sector to overcome these problems[39]. This has wide-ranging implications. A bank can never know exactly how financially healthy a debtor is. The debtor will not seek help from their commercial bank, if they are experiencing cash-flow problems, meaning that the bank will continue to believe that they are healthy borrowers. Bankers will openly admit that in China, financial reports do not necessarily reflect the actual performance of the company[40]. If a bank cannot trust the reports it receives and also is not the first point of call for a struggling business, then can it really act

[38] Interview NJ-15-02-001
[39] Interview SH-15-03-001
[40] Interview NJ-14-12-008

as a delegated monitor? Furthermore, some debtors will at times have a line of credit from both the formal and the shadow banking sector, without having to disclose this in their financial statements. For a cash-flow bridge, a short term loan to maintain the business, entrepreneurs are often willing to pay exorbitant and usurious interest rates. This means that from the outside a business might look healthy, but the bank is unlikely to be in a position where it can ascertain how healthy their borrower actually is.

In addition to the providing services to surplus-saving and surplus-spending units, the shadow banking sector also provides key functions to the formal financial sectors, i.e. the banking sector and financial markets. One core element of this function is provided by wealth-management products (WMPs). Essentially, WMPs are securities, which much resemble money-market mutual funds and allow banks to obtain deposit-like funds from the general public. Many retail investors in these products even believe that they are as safe as bank deposits and that ultimately the bank is liable for those products.[41,42] Legally, WMPs are not bank deposits and therefore are not included in banks desposit-to-loan ratios. This means that banks can use the funds from the sale of WMPs to extend more loans. This is just one example of the regulatory arbitrage that the shadow banking sector is involved in the interbank market. Due to minimum reserve requirements, little ability to deviate from the PBOC's interest rates, loan quotas and strict deposit-to-loan ratios, commercial banks have created a web of different shadow-banking institutions to further advance their own business. This is another core function that the shadow banking sector provides.

[41] Interview SH-15-03-001

[42] Popular media reports have suggested that banks have at times accepted liability for missold WMP products, despite not being legally liable to do so. Interviewee SH-15-03-001 has confirmed that this is not an unusual practice.

Based on this, it is my opinion that we should classify shadow banking not in form of the legality or illegality of its institutions, but according to the function it provides to the financial system as a whole. The table below is an adaptation of the table used earlier in this chapter.

Loans	Deposits	Formal financial sector
• Interpersonal lending • Trade credit • Rotating savings and credit associations • Pawnshops • Private funds • Venture Capital Firms • Microcredit Companies • P2P Finance providers • Wealth Management Products • Off-balance sheet lending • Guarantee Companies • Usurious Loans	• Private funds • Microcredit Companies • P2P Finance Platforms • Rotating savings and credit associations • Venture Capital Firms • Wealth Management Products	• P2P Finance Platforms • Microcredit Companies • Wealth Management Products and Companies • Credit Guarantee Companies •

Source: own elaboration

Table 6 - Institutions in the Chinese Shadow Banking Sector by Function

Based on the literature review and informed by my own interviews, we can identify three core functions of the shadow banking sector. The first is the an alternative to loans. Under this umbrella we can identify all institutions of the shadow banking sector, which offer an alternative to the formal financial sectors for deficit-spending units. Individuals and enterprises can seek a loan from all of these institutions. The second group provides an alternative to bank deposits. Surplus-saving units can choose to put their money in a variety of shadow banking institutions and/or products. In addition to offering a higher return than traditional bank deposits they also tend to incur a higher risk. Lastly, we can group the institutions according to their function to the other financial sectors. These are institutions, which provide functions to the banking sector and the financial markets.

4.5 Concluding Remarks

This chapter has sought to bring some light into the nebulous term that is shadow banking. By firstly acknowledging and defining the bank-like activity exists outside of the regular banking sector, I have highlighted one of the key shortcomings of financial systems design theory. If there is another third sector, which is almost as big as China's financial markets, then this sector must not be omitted in any discussion on China's financial system.

This chapter has then used an institutional approach to identify and discus the different institutions, which make up this sector. While being largely descriptive, the institutional approach allows us to grasp the different actors of this sector. As the literature has largely used the legal status of the different institutions, I have stuck to it for the purpose of simplicity and comparability. As this chapter has highlighted, the fluid nature of the legal status and the different legality of actors within the same type of institution, e.g. interpersonal lending vis-à-vis usurious loans, make this a largely inadequate way to understand shadow banking as a whole.

Lastly, this chapter has used a functional approach to identify the functions provided by the shadow banking sector. I believe that this is a better approach to understand and analyse shadow banking, for it does not rely on changing legal norms or modus operandi. We can sum up the functions that Chinese shadow banks provide in three key themes. First is investment opportunities for surplus-saving units, which provide higher interest rates than conventional bank deposits but also leave the investor exposed to greater risks. The second function is an alternative to deposits. Surplus-saving units have limited investment opportunities available to them through the formal financial sectors. Shadow banking therefore provides an alternative for all of those, who desire higher returns on their savings Lastly for the banking sector, shadow banks provide regulatory arbitrage. Commercial banks can circumvent regulation designed to limit risk-taking. This begets the question, what impact this has on the Chinese economy and her financial system overall?

4.6 Presenting the key hypothesis: the supplemented financial system

In this study, I explore whether the absence of the shadow-banking sector exposes in fact a significant gap within financial system design theory. Must one take this third financial sector more into account to fully analyse all components of financial systems? What if formal financial sectors do not provide the functions that they ought to? This dissertation proposes an alternative analytical framework for the analysis of the Chinese financial system: the supplemented financial system.

In a financial system, where neither banks or financial markets perform the functions they ought to, capital is likely to find an alternative intermediary. As a result, a large shadow-banking sector develops, which *supplements* various aspects of the two formal financial sectors, the banking sector and the financial markets. Formal here does not imply that all institutions of the *shadow-banking sector* are informal institutions. As outlined before, the definition of shadow banking in itself gives us neither a coherent picture of formality or legality of institutions within this sector. An extremely large array of various institutions is grouped under the term and at face value they differ on multiple levels. For example, the difference between illicit finance, i.e. usury loans, and microloan companies could not be greater. What both institutions have in common nonetheless is that they all supplement the functions usually provided by the banking sector and the financial markets. They are by-products of a financial system, which requires more than a banking sector and financial markets to channel capital to the most efficient use in an economy.

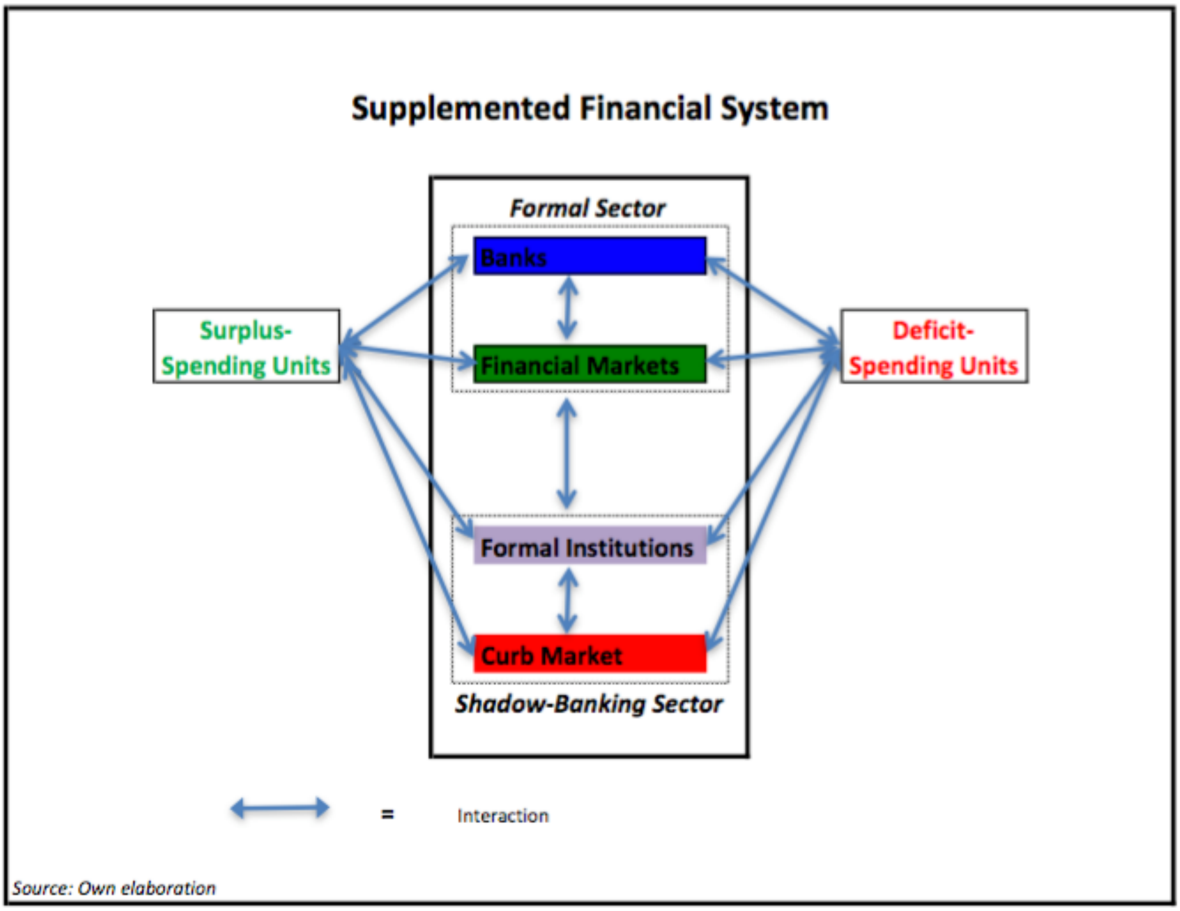

Diagram 8 - The Supplemented Financial System

The diagram illustrates the interactions in a Supplemented Financial System. Surplus-spending units do not solely deposit their money in banks or invest their money in the financial markets. They also invest their surplus capital in the shadow banking sector. Here the destinations of said investments are manifold, ranging from the purchase of *Wealth Management Products*, over loans through P2P financing platforms to investments in the *Curb Market*, i.e. informal finance. Because of this integral role played by the shadow-banking sector, these interactions deserve further investigation. The lack of understanding for the systemic role of said sector not only warrant further research, it demands it.

Similarly, we find that deficit-spending units tend to originate their capital not merely through bank loans or equity investments from the financial markets. They also tend to rely, some would argue in the case of China quite heavily, on both formal institutions in the shadow-banking sector and informal finance. While this study analyses privately owned enterprises' use of the shadow banking sector, it is important to note that they by no means the exclusive recipients on this side of the financial system. Also private borrowers often diversify their sources of finance. For example, individuals wishing to buy apartments borrow some of the initial down payment from informal lending networks, e.g. their wider family, to qualify for bank loans to purchase their desired residential property. In essence, any of the deficit spending units have some form of interaction within both macro-sectors of the financial system, the *formal financial sector* and the *shadow-banking sector*.

Shadow banking is credit intermediation which takes place outside of the formal banking system either partially or fully. If only partially, we can expect interaction between the two financial systems. For example, banks might sell private wealth management products and use those funds to extend loans without being covered by provisioning requirements. Microloan companies might seek to go public in order to raise more capital to extent more loans. The shadow banking sector is one that is woven into the wider fabric of financial relationships in an economy, supplementing the shortcomings of the formal financial sector.

The literature reviewed in this chapter has shown that financial systems design theory, albeit applicable to many financial systems around the globe, is problematic as an analytical backbone to analyse the Chinese financial system, which relies heavily on a shadow-banking sector. It may also be problematic in examining other financial systems, as shadow-banking is to various degrees prevalent in all countries. Understanding the supplementary function of this sector in the wider fabric of financial systems design theory is the core contribution of this thesis.

Chapter 5: The Shadow Banking Sector in Nanjing

The first case of of this study is the city of Nanjing. Nanjing is one of the high-technology hubs in China. It has a vibrant high-tech start-up, biotechnology and venture capital scene. Many places in Jiangsu present a a similar macroeconomic setup, namely Suzhou （苏州）, where the majority of the world's laptop computers are built or Hangzhou （杭州）, the home of the large internet conglomerate Ali Baba （阿里巴巴）. In a cross-provincial comparison for China, Jiangsu province is the second most economically active province after Guangdong, with a Gross Regional Product (GRP) of 491trn CNY (National Bureau of Statistics, 2014). Even when accounting for the different population sizes, the industrial output of Jiangsu is impressive: it has the fourth highest GRP per capita in the whole of China (National Bureau of Statistics, 2015). Jiangsu Province therefore provides a very interesting case study for the shadow banking sector in China. Its economy is increasingly moving away from heavy industries towards a knowledge- and skill-based industries. With a maturing economy, banks should have been able to adapt well to the importance of POEs for regional development. They should in theory have responded to this by providing much of the funding that is needed to achieve and continue the remarkable growth pattern. The reality however looks starkly different. When interviewed for the World Bank Enterprise Survey, only 13.1% of all firms in Nanjing had access to a bank line of credit, compared to 25.3% of firms in China overall and only 0.4% of investments in Nanjing were financed by banks, compared to a cross-country average of 4.5% (World Bank, 2012). This begets the question, which actor in the financial system is providing POEs with access to finance?

This chapter will first provide an institutional analysis of the shadow banking sector in Nanjing. Drawing on empirical interview data, I will identify the most important institutions. I will then move on to describe their properties and the services they provide to enterprises in

Nanjing. Which of the institutions, which I discussed in the previous chapter, are found in Nanjing? While the previous chapter looked at the existence of shadow banks in the whole of China, this chapter seeks to establish which of the institutions are presently operating in one of China's Tier II cities. I will further describe each institutions properties vis-à-vis traditional banks to explore what function they play in the local formal financial system in Nanjing.

Following the institutional analysis, this chapter will engage in a functional analysis. Understanding the institutional landscape of the local shadow banking sector in Nanjing is an important first step. Nonetheless, it is more important to understand if we can understand the entire sector through the core functions they provide. Based on the thorough analysis of my empirical interview data, I identified four core functions. It provides access to finance and an alternative to traditional bank deposits. It further provides a service to the formal banking sector, i.e. traditional formal commercial banks. Lastly it provides a method for the local government to stimulate and promote growth of high-tech industries through the direct allocation of financial resources.

5.1 Institutional Analysis

The institutional approach was initially developed to analyse various financial institutions and the central bank as the central unit of analysis. For the shadow banking sector, this approach is slightly adapted to analyse the various institutions in the shadow banking sector and their relationship with other financial institutions. I will therefore qualitatively describe these institutions based on the empirical data collected. Institution here both describes hard institutions and soft institutions. Hard institutions are legal entities, e.g. P2P financing platforms or microfinance companies, which are engaged in credit intermediation. Soft institutions are informal institutions, e.g. interpersonal lending. Each section will discus the potential benefits and drawbacks of each institution, as well as negative externalities, if there are any to be expected.

During the semi-structured interviews, most interviewees frequently mentioned the following shadow banking institutions: interpersonal lending, followed by microfinance, P2P lending platforms, trust companies, venture capital (VC), wealth management companies and credit guarantee companies. The following section will discus the experiences that interviewees had with these institutions and the way in which they operate. The purpose of this is to analyse, which of the institutions that exist in China at a national level are actually present in a Tier-II city like Nanjing. Understanding the institutional landscape of the local shadow banking sector will allow us to better understand and analyse the functions they provide.

5.1.1 Interpersonal Lending

Despite Nanjing's high level of economic development, private lending continues to be important to of high importance. Interviewees made repeated references to the role that interpersonal loans continue to play for POE finance in Nanjing. The main advantages of interpersonal loans are processing times, in some cases funding costs and flexibility[43]. The disadvantages are at times high funding costs, as well as dubious lenders and business practices.

Banks and formal institutions have complex approval procedures to limit the risk they expose themselves to. Loans from one person to another does not rely on the same principals and is hence much quicker. One entrepreneur stressed that this is their preferred source of finance for urgent financing needs[44]. Another entrepreneur said that for them interpersonal

[43] Interview NJ-15-05-001; NJ-15-03-001; NJ-14-12-005; NJ-15-03-003; NJ-14-12-003
[44] Interview NJ-14-12-005

lending is the last resort, if all other options have failed[45]. In those cases, they would sometimes also borrow money from their own employees and pay them back with interest. Lenders have told me that as they can make their decisions instantaneously, so people borrow from them if they need money urgently[46]. Even borrowers, who would qualify for bank loans but do not want to wait, resort to interpersonal lending as an alternative due to the quicker loan approval, as an experienced JSCB loan officer pointed out[47]. All of this would suggest that interpersonal loans provide somewhat of a supplementary function. Formal banks and other hard institutions in the shadow banking sector cannot provide the same service, i.e. short-term loan approvals.

In some cases, interpersonal loans are outright substitutes for all other lines of credit. One entrepreneur stressed that he prefers to use interpersonal loans over bank loans[48]. In his case, his friends and he have in the past extended the courtesy of interest-free interpersonal loans. His friends do not receive a financial reward but rather rely on the borrower to return the favour in the future. Similar concepts are known in informal finance in rural China, where farmer extend interest-free loans to others. The loans that this particular entrepreneur can acquire through his friends can range up to one Million CNY. His business, a biotech company, has relatively low profit margins, meaning that he would not be able to pay high interest rates. The line of credit from his friends is therefore vital for his business and has allowed him to flourish. He went on to stress, that their relationship and the relationship between their families serves as collateral for the loan. If he fails to pay the loan, he would loose his standing within his wider social network. There is also a good chance that he would become a social

[45] Interview NJ-14-12-003
[46] Interview NJ-15-06-002
[47] Interview SH-15-03-001
[48] Interview NJ-15-05-001

outcast, if he failed to honour the loan agreement. We could see it as peer pressure, which compels him to repay the loan. Amongst his interpersonal lending network, his friends would not seek any tangible assets to secure the loan.

A range of interviewees have emphasised that *Guanxi*, the interpersonal relationship between people, often serves as collateral for interpersonal loans[49]. A good personal relationship between the lender and the borrower ensures, that the latter services and ultimately repays the loan. One interviewee stressed in particular that he does not accept anything but *Guanxi* as collateral.

> *"I only lend money to people I know very well. Even if you can present me with collateral, like a house certificate, I won't accept that. I will mainly look at how trustworthy you are. So yes, Guanxi is a kind of collateral."*[50]

Even if borrowers offered him tangible assets as collateral, he would not base his lending decision on it. Instead he would only lend to people, if he found them trustworthy and knew them well[51]. The wide ranging role of relationships and extended personal networks was brought up repeatedly during other interviews. This form of relationship lending in the shadow banking sector differs profoundly from concepts found in the literature on banking. Within the literature on banks, relationship lending describes the collection of information over time, in an attempt to overcome the asymmetry of information. The relationship aspect here is interesting, for it absolves the lender from collecting any information and allows him to purely rely on his interpersonal relationship. A non-tangible asset with no commercial value is used to secure their loan agreement. This suggests that a greater degree of flexibility allows shadow banks to provide a service, which the formal banking sector cannot provide. It also

[49] Interview NJ-14-12-006; NJ-15-03-001; NJ-14-12-003; NJ-15-05-001
[50] Interview NJ-15-03-001
[51] Interview NJ-15-03-001

suggests, that this competitive advantage of the shadow banking sector is part of the reason, why entrepreneurs turn to it.

An entrepreneur, who was originally from Zhejiang Province, stressed that a network of entrepreneurs from this province had organised in a chamber of commerce and through that he had access to finance[52]. These entrepreneurs frequently lend money to each other. Unlike the other interpersonal loans, these are not interest free despite being organised through extended personal networks. Interest rates vary but can easily be as high as 10% per month. This means that these loans are classed as usurious loans. This makes these loan agreements illegal and impossible to enforce through the formal legal system. Despite all of that, the entrepreneur said that this has helped him often. He further went on to stress that the interest rate was considerably lower than other interest rates for interpersonal loans.

From the interviews conducted for this study, it appears that relationships matter in interpersonal loans. Lenders use them to secure loans and borrowers rely on them to get access to finance. Lenders further need relationships amongst other lenders too. This is the only way to ensure that they can serve all borrowers. A moneylender said, that although he could not personally extend loans of one billion CNY, if the chance arose, he could ask his friends to cooperate with him and they would jointly lend the money and jointly carry the risk[53]. He further highlighted that there might be a cultural explanation for this, as Chinese people tended to trust their friends more than they trust banks[54]. Hence investing in your friends would guarantee a better return than depositing it in or investing it through banks, unless one likes their friends enough to not charge them interest.

[52] Interview NJ-14-12-005
[53] Interview NJ-15-06-002
[54] ibid.

The role of Guanxi as a form of collateral somewhat romanticises the notion of shadow banking. These loans almost appear as selfless acts of friendship rather than business transactions. Friendship also replaces the need for collateral for loans, because friends trust each other. While this might be true for some aspects of interpersonal lending, we must not forget that much of shadow banking relies on hard tangible assets as a security for loans. The advantage here is a much higher degree of flexibility, when it comes to accepting various forms of collateral. Interpersonal loans can be secured through a range of different valuable objects, such as watches or high-value items[55]. One former moneylender said he had at times even accepted student ID cards as collateral for loans up to 30,000 CNY[56]. Together with this ID, their home address and the parent's phone number, this would suffice as collateral for an interpersonal loan. The interviewee responded vaguely, when asked about the way this claim could be enforced, if the loan became non-performing. The flexibility of interpersonal lending is another reoccurring theme in the interviews. They are more flexible when it comes to what form of collateral they can accept, the interest rate they charge and the way and speed in which they approve loans[57]. One interviewee went as far as saying that because of this, the shadow banking sector is better at responding to their business requirements than the formal banking sector[58].

While having multiple advantages for the borrower and the lender, interpersonal lending also has disadvantage for both and wider society. First of all, usurious loans (高利贷) also fall into this category, because they are extended between actual people. Many usurious loans are extended by lenders with questionable ethics, e.g. the former money lender who

[55] Interview NJ-14-12-005
[56] ibid.
[57] Interview NJ-15-06-002
[58] Interview NJ-14-13-003

did not want to explain how he can enforce a loan, which had been 'collateralised' by a student ID card. An entrepreneur, who used interpersonal lending before said that he does not borrow from certain lenders, because it was very dangerous, the interest rate is very high and '*something bad*' could happen to him[59]. Other interviewees have expressed their wish that in the future more effective regulation was passed to protect both the lender and the borrower and allow a more formal environment for interpersonal lending[60]. Borrowing money from professional money lenders might be easy[61], but it can also be a dangerous endeavour with severe consequences for one's own personal safety.

The second issue is the level of interest rates. For example, if a borrower requires a 10,000 CNY collateralised loan from a professional moneylender, the monthly interest payments in 2015 would have been around 400 CNY. This is equal to an annual interest rate of 48%[62]. Without collateral, the monthly interest payment would range between 500 CNY and 800 CNY per day or 60% – 96% annually[63]. The highest interest rate is charged in underground gambling houses, where a loans of 1000 CNY can easily result in daily interest payments of 300 CNY to 500 CNY[64]. This is equal to an annual interest rate of 10800% to 18000%. Interest rates of this magnitude make capital extremely costly. They are also very likely to generate negative social externalities. As these claims cannot be enforced legally through the judiciary system, they are likely to be enforced using illegal and criminal means. This is what the interviewee was referring to, when he said that '*something bad'* could happen to him.

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59 Interview NJ-15-03-001

60 Interview NJ-14-12-005

61 Some of my interviewees openly offered loans to my interpreters. At times it was not clear if these offers were just to illustrate a point of if these were genuine offers.

62 Interview NJ-15-06-002

63 ibid.

64 Ibid.

It is important to note that usurious loans are sub-group of one form of shadow banking. Even within the field of interpersonal loans, my interview data does not suggest that they account for the majority. A former professional money lender stressed that lending money at such high interest rates is short-sighted. He said that no legitimate business would operate with profit margins high enough to afford these interest rates. He would personally not charge more than 20%, which he claimed was a widely used benchmark in interpersonal lending[65]. Another unrelated interviewee confirmed that this is what they would normally charge for an interpersonal loan[66]. It is important to note here that this is approximately the threshold for a loan to be considered usurious. We should therefore not assume that they have not charged higher interest rates in practice, but rather avoided saying so during the recorded interviews.

From the research conducted for this study, we can conclude that interpersonal loans have provided much needed lines of credit for two types of businesses. The first are those, which are not eligible for a bank loan. The second type are businesses, which need the funds urgently. There is no uniform picture on the level of interest rates charged for interpersonal loans. Some loans are entirely interest free. Other lenders charge exorbitantly high interest rates, which go far beyond legal caps. Interest rates as well as lending facilities in general depend largely on the personal relationship between the borrower and the lender. In some cases, this relationship serves as a form of collateral. It is therefore important to make a clear distinction between those interpersonal loans, which provide a positive supplementary role and those, which do not. Positive interpersonal loans are those, which provide capital with the much needed flexibility and also at a cost, which allows businesses to flourish. Negative

[65] Interview NJ-14-12-005
[66] Interview NJ-15-03-001

interpersonal loans are those, which charge exorbitant and usurious interest rates. Firstly, these loans can often send borrowers into a spiral of debt. Interest payments are likely to accumulate into new debt. Secondly, these loans cannot be recovered using the legal system and are likely to result in negative social externalities, i.e. crime and violence.

5.1.2 Microloan Companies

"The microloan just depends on the personal or the companies' credit [history].

So if you have a good image, you can always get a loan and also it is quicker.

If I need a lot of money in a short time, I can apply for a microloan."[67]

Microloan companies also play a large role in POE finance in Nanjing. In Nanjing, Microfinance companies only became important in the last 13 years[68]. Microloan companies were established to with the support of the local and municipal governments. These companies were set up for two reasons: to make microloans more transparent and address the shortcomings of traditional banks to fund SMEs[69]. After banks, these are usual the first point of call for POEs seeking to obtain a line of credit[70]. According to the Jiangsu financial authorities, microloan companies can lend a maximum of three million CNY per loan or, if their assets exceed 200 million CNY, they can lend up to six million CNY per transaction[71]. The loan maturity is set by law and must not be longer than one year but can be significantly shorter, for example 10 days or a month[72]. The advantages of using a microloan company are somewhat similar to those of interpersonal loans, namely faster processing times and leaner approval procedures than traditional banking loans. Commercial banks in China need at least one month to process a loan application. The disadvantage are the higher funding costs. As

[67] Interview NJ-14-12-001
[68] Interview NJ-15-02-001
[69] Interview NJ-14-12-004
[70] Interview NJ-15-03-002
[71] ibid.
[72] ibid.

this section discusses, these are lower than in most interpersonal loans but higher than bank loans. Lastly, another disadvantage of microloan companies, which does not affect the lender-borrower relationship is the limited geographical scope of their operation. A microloan company based in Jiangsu Province can only extend loans there.

Loan approval procedures in microloan companies are significantly faster than in traditional banks. As the executive of a local microloan company pointed out, banks require a long report about potential lenders, which easily exceed 20 pages[73]. Microloan companies on the other hand only require a report of three to four pages[74]. We can only accept his claim on face value and cannot confirm that the three to four-page report allows for the level of information as a bank's 20-page report. He said they also have to consider the personal background of the borrower, for example criminal convictions or bankruptcy. They also have to investigate the current financial situation of the borrower and his enterprise. Lastly, they also have to evaluate his collateral. Only then would they make the decision, whether to extend the loan or not. The question remains, whether a report of 20 pages can easily be replaced by a report of three or four pages and offer the same level of scrutiny and limit exposure to risks from NPLs. Comprehensive data on NPLs within MCCs or the shadow banking sector is not available to confirm his statements. The shorter report does however significantly reduce loan approval times to a few days or a week at most, which is shorter than the loan approval times at commercial banks[75]. Quicker loan approvals further enforce concerns that procedures sacrifice due diligence and risk control for faster decision-making. As many microloan companies are not publicly traded, it is hard to assess the systemic risk emanating from them or the quality of loans they hold in their books.

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[73] Interview NJ-14-12-004
[74] ibid.
[75] Interview NJ-14-12-004

Overall we can see the appeal of lines of credit from microloan companies for POEs with urgent financing needs, who are unable or unwilling to service debt at higher funding costs. As a high-tech incubator pointed out, banks are the preferred choice for finance for most entrepreneurs. If they cannot qualify for a bank loan, then they will go to a microloan company[76]. Within the shadow banking sector, the procedures of MCCs do not offer the same amount of flexibility as interpersonal loans. Interest rates charged for microloans vary largely, depending on maturity and collateral offered to the microloan company. Interviewees have usually described them to be between 14% to 24% per annum[77]. This means the funding costs are significantly lower than some of the interpersonal loans, but still higher than those of bank loans. The problem is that many high-tech companies, especially in their start-up stage, are unable to service loans at these interest rates. Their relatively low profit margins are simply not large enough to support such high interest payments[78]. The interview data further suggests that borrowers use microloans as a substitute for a bank loans. They use either one or the other but not both at the same time.

Our data also suggests that MCCs are better equipped to evaluate the credit risks associated with SMEs. An incubator interviewed for this project said that often microloan companies are better suited for SME lending than banks[79]. Because of their limited geographical scope, they have a better knowledge of the borrower, his local business environment, and therefore can evaluate risks much better than traditional banks. This would mean that microloan companies are much better at overcoming the asymmetry of information between lender and borrower than traditional banks. This means that the

[76] Interview NJ-15-03-002
[77] Interview NJ-14-12-001; NJ-15-06-001; NJ-15-03-002; NJ-15-05-001
[78] Interview NJ-15-06-001
[79] Interview NJ-15-02-001

geographical limitations placed on MCCs is not necessarily negative. This research suggests that this allows MCCs to have a positive impact on SME development. On the other hand, these limitations also restrict their own development: they cannot outgrow the area, where they were first established. Due to regulatory requirements, microloan companies are not allowed to seek deposits from the public but must only lend funds that they have raised as equity investment from investors. This severely limits the total amount of loans that any microloan company can extend to its borrowers, especially if they are focusing on a limited geographical location. Microloan companies have in the past circumvented this by raising investment through equity markets, both domestically and abroad[80]. This has allowed them to extend their capital base, but this option is not available for everyone. Chapter Three discussed in great detail why initial public offerings in China are a complicated matter and are only available to very few companies at all. Therefore, only a handful of MCCs can actually rely on financial markets to broaden their own capital base. Another regulatory issue, which limits the potential growth of MCCs are leverage requirements. Microloan companies have different leverage requirements than banks and therefore need to raise much more capital to give out the same amount of loans as a bank would. Some microloan companies would therefore like to become commercial banks but thus far struggle to obtain the correct licenses[81].

Overall we can say that MCCs provide a positive function to the local financial system in Nanjing. Microloan companies provide a range of valuable functions to POEs by expanding access to finance. They provide this function without any of the negative externalities associated with some forms of interpersonal loans. The interest rates of these loans are significantly higher than for bank loans, which can be seen as a problem for companies with

[80] Interview NJ-14-12-004
[81] Interview NJ-14-12-005

low profit margins, e.g. high-tech companies or start-ups. If they cannot get bank loans and cannot afford microloans, they can only rely on low-interest interpersonal loans or other forms of finance, e.g. equity finance. The ability of microloan companies to effectively provide enough credit for those POEs, which currently do not have access to bank loans without access to bank loans is further hindered by the limited capital they can accumulate through investment and limitations on their leverage. These regulations are meant to prevent systemic risk emanating from the sector but also limit their ability to effectively replace traditional banks in POE and SME finance.

5.1.3 Peer-to-peer (P2P) lending platforms

Peer-to-peer (P2P) lending platforms are the third most mentioned shadow banking institution in Nanjing. As discussed in Chapter Four, P2P finance is one of the most debated trends in the formal shadow banking sector. For years there was little agreement about what it constitutes it and what its modus operandi should be.

Generally my interview data suggests, that P2P lending tends to serve the lower end of the market, because '*if a company seeks a loan from P2P, it must be badly in need of money'*[82]. The typical borrower is likely to be one, that has not been able to secure a bank loan or a loan through a microloan company[83]. They also do not have the necessary personal network to source finance from interpersonal loans. Serving this sub-section of the market means that the borrowers bear a higher risk to the lender. The significantly higher risk that these platforms take leads to significantly higher interest rates. Interest rates range from 12%[84] to 30%[85] for loans extended through P2P financing platforms.

[82] Interview NJ-14-12-008
[83] Interview NJ-14-12-002
[84] Interview NJ-15-03-002
[85] Interview BJ-14-11-002

Despite the high costs of loans, P2P has an advantage over most of the formal banking sector: faster approval times. Much like many of the institutions within the shadow banking sector, they are not bound by complicated, multi-hierarchy loan approval procedures. For most loans in P2P, an application can be processed and approved in one to a maximum of five days[86], compared to potentially months in traditional banks. These two are the major reasons, borrowers turn to P2P for funding: a greater access to finance and fast processing times. This in itself is potentially a positive thing. Faster credit intermediation and a broader access to finance is likely to have a positive impact on economic development. The question is to what extend this benefit might be outweighed by other negative externalities.

In an interview with a national P2P platform executive, she highlighted that the NPL rate in P2P finance companies are significantly higher than in traditional banks[87]. According to the regulation at the time, P2P lending platforms were allowed to have a NPL rate of 5%. Commercial banks were by law required to keep theirs below 1%. She went on to indicate, that many P2P platforms face NPL rates of far greater than 5%. This included the one that she worked for. P2P works with a higher risk for a higher profit margin[88], but it seems as if this higher margin might be risk due to a growing NPL problem. In the time since I conducted my empirical fieldwork, many P2P platforms have been shut down and exposed a giant pyramid schemes.

One reason that P2P platforms face higher levels of NPLs might be that borrower and lender do not know each other[89]. As highlighted earlier, other forms of shadow banking, e.g. interpersonal loans, rely heavily on the concept of interpersonal relations, or *Guanxi.* This

[86] ibid.
[87] Interview BJ-14-11-002
[88] Interview NJ-15-07-001
[89] Interview NJ-15-07-001

relationship often compels borrowers to service loans so as to not damage the underlying relationship. It glues together the borrower and the lender. In microfinance, due to their limited geographical scope, the microloan company will also have a good working relationship with their borrower as they have gathered information on them over time. In P2P and other forms of internet finance, the borrower and lender do not know each other. Therefore, traditional soft institutions like Guanxi will not compel the borrower to service his debt. If the borrower does not service his debt, his social network will not know and will not treat him as an outcast.

Another reason that P2P financing platforms face much higher NPL rates than other institutions also lies within the general business model. These lending platforms are relatively new and, at the time this research was conducted between 2014 and 2015, were poorly regulated. Many interviewees have thus expressed concerns that P2P lending platforms do not operate a viable business model and have poor risk control[90]. Additionally, there is a problem with transparency of these institutions[91]. The regulatory framework stated that the NPL rate must not be over 5%. Therefore, many platforms reported that their rate is 5%, despite facing much higher levels of NPLs. If the regulation states that the NPL rate is only 5% but in reality it is much higher, than this lack of transparency is dangerous for both, potential borrower and potential lender. At the time of the interview, approximately 30 traditional banks were also keen on starting their own P2P financing platforms[92]. This, paired with the underlying problems surrounding the business model and its regulation, creates an amplitude of different problems. In China, many retail investors hold the belief that an investment product sold to them by a commercial bank is as safe as bank deposits – a belief that has often

[90] Interview NJ-14-12-008; NJ-14-12-006; NJ-14-12-005; NJ-15-03-003
[91] Interview NJ-14-12-009
[92] Interview BJ-14-11-002

been nurtured by banks paying for losses, for which they were not legally liable[93]. This creates potentially destabilising issues of moral hazard, because risk control becomes near impossible for regulators. In the time that elapsed since the fieldwork for this project, regulators in China have issued various rules and regulation of the P2P sector, often fuelled by high-profile nation-wide defaults and bankruptcies of platforms.

P2P finance is still a relatively new concept and is not to be taken as a viable alternative to take the lead in the shadow banking sector or even to replace any shadow banks. It surely widens access to finance for entrepreneurs and private households alike. However, it does so by not using the same soft institutions, e.g. *Guanxi*, as other shadow banks. In its pursuit to widen access to finance it also seems to not use the same level of risk-adverse behaviour as for example microfinance institutions or even interpersonal loans.

5.1.4 Trust Companies

Trust companies are more important than P2P or microfinance institutions in terms of their size and lending power[94]. In the case of Nanjing, we can divide trust companies into two distinct institutions[95]. The first is to provide leverage so that commercial banks can lend more money. Chapter Four has outlined the method in which trust companies operate. Commercial banks often own trust companies, although legally they are financially independent from them[96]. The second institutions are institutions, which are designed to facilitate the rolling-over of bank loans. Before commercial banks can renew a loan in the People's Republic, they first have to document that the initial loan was repaid. Therefore, enterprises often need a short-term loan from the shadow banking sector in order to pay off the initial loan and wait

[93] Interview SH-15-03-001
[94] Interview NJ-15-02-001
[95] Interview NJ-15-07-001
[96] Interview NJ-14-12-009

for the renewal of the bank loan. This is discussed in greater detail in the functional analysis of Nanjing's shadow banking sector, because it is one of the key functions this sector provides to the formal banking sector.

Trust companies further allow the spread of risk of a loan amongst different investors. Investors typically buy an investment product through a bank or a third-party. The trust company subsequently uses this money to extend loans[97]. Trust companies can operate safely and provide a much needed addition to the financial landscape in China. In order to to that their products and underlying loans need to designed and extended according to legal and risk-adverse principals. The problem is however that often they are not. In the past, loans were extended without collateral, while the trust company financed the endeavour either through a bank loan or investment products[98]. A banker, who had personally been involved with trust companies, said that this this has in the past lead to the default of loans and bankruptcy of many trust companies[99].

Trust companies have further not diversified their lending operations and are relying heavily on the real estate sector for growth[100]. A real estate developer said that trust companies were preferred institution in the shadow banking sector for the real estate sector[101]. He stated that the loan approval times for these loans were also very quick. It would often take less than a week between a loan application and its approval. He further emphasised that the last time his enterprise had received a loan from a trust company, the loan had been non-collateralised. Trust companies saw the real estate sector as a safe investment and therefore collateral was not needed. This does once again raise issues of moral

[97] Interview NJ-14-12-008
[98] ibid.
[99] Ibid.
[100] Interview NJ-14-12-003, NJ-14-12-008
[101] Interview NJ-14-12-003

hazard, for the trust company can surely not fulfil its obligations to its investors, if it gives out non-collateralised loans between ten and two hundred million CNY[102]. This is even more so the case when the borrower had been turned down by a commercial bank before. The interest rate for these loans is also too low to factor in the inherent risk with only 12-15% p.a. in 2014[103]. As the before mentioned banker pointed out, the trust company's profit margin is only 5-6% and thus any default on a loan is likely to completely quash any profit overall[104].

The extension of loans without collateral at low interest rates also make trust companies a potential systemic threat. A default on any of these loans could have dramatic knock-on effects, especially if they have used bank loans or are subsidiaries of commercial banks[105]. In the absence of a deposit insurance scheme, the government is often seen as the guarantor of bank deposits. Many retail investors, i.e. households, have bought trust company investment products through banks. They often believe that these are as safe as bank deposits, and that the government would bail them out. The core issue here is the lack of transparency within and between trust companies, which make both informed decisions about investments as well as vital risk assessments a near impossible task[106].

A venture capitalist further said that the government had also used a trust company to allow commercial banks to move underperforming loans off their books[107]. These loans had often been extended to POEs. This trust company, *Sukedai*, would effectively encourage commercial banks, state- and privately-owned, to lend capital to POEs. It would give a

[102] ibid.
[103] Ibid.
[104] Interview NJ-14-12-008
[105] Interview NJ-14-12-009
[106] ibid.
[107] Interview NJ-15-07-001

guarantee to buy the loan if it became under- or non-performing. It was impossible for us to validate these claims, for research into this trust company was not fruitful.

Trust companies themselves are a valuable addition to the Chinese financial landscape, if they adhere to rules and regulations. They provide a great supplementary service to the banking sector by providing access to bank loans, where banks are unwilling to lend. In order to safely fulfil this function, they need to be sheltered from banks in order to prevent a dangerous knock on effect. Furthermore, retail investors need to be fully aware that they are purchasing an investment product, even if they do it in the office of a commercial bank. It also appears that there is a strong functional relationship between the formal banking sector and trust companies. The rolling-over of loans for example is only necessary because commercial banks do not typically extend loans with a maturity over three years[108]. However, many investments are unlikely to offer a full-return within those three years. As banks require the full loan to be paid back before it can be re-extended, an underbelly of shadow-banking institutions has developed to serve as short-term/high-interest lenders.

5.1.5 Venture Capital

> *'The banks cannot earn much when the enterprise is doing well but can loose a lot, when the enterprise is doing bad. There comes VC – they have equity in the private enterprise.'* – Venture capitalist on the advantages of equity over over debt-finance[109]

Venture capital (VC) was the fifth most mentioned shadow bank. It might also be the only shadow bank, which is often not seen as one. When I interviewed VC fund managers and other venture capitalists, they often did not see themselves as belonging to the shadow

[108] Interview NJ-14-12-004
[109] Interview NJ-15-07-001

banking sector. They do however take a form of deposit by taking money from investors and promising a return on this investment.

The advantage VC has over traditional banking and much of the shadow banking sector is that due to the nature of equity finance they are not bound by interest rate requirements[110]. Equity investments do not incur an annual interest, because they are not loans. The return on the investment is materialised, when the investor exits and sells his equity share. VC firms do expect large growth rates and often do have returns, which exceed those of usurious loans. The difference, as a venture capitalist was eager to make clear, is that they only expect a return on their investment within the next one to five years[111]. For the entrepreneur, this makes it more attractive than traditional debt-finance. Entrepreneurs will not have to make regular interest payments but the return is generated when the investors exits the venture – either as it is being sold entirely or as he is bought out by the other equity holders. Furthermore, the capital is committed for a longer period of time, than bank loans. The maturity of bank loans can be up to three years, but in reality it rarely exceeds one year[112]. VC funds are therefore a growing business in Nanjing as well as a rest of China[113].

VC companies are funds, which offer long-term committed capital. Due to the due diligence involved in purchasing equity in an enterprise, a decision to make an investment is not quick. In many cases, it takes as long or even longer than the application process for a traditional bank loan. With their due diligence and their checks, VC firms take about three months to make a decision on whether to invest in a certain venture[114]. It is therefore the only shadow bank, which does not have a comparative advantage in loan approval times over

[110] ibid.
[111] Interview NJ-15-06-001
[112] ibid.
[113] Interview NJ-14-12-007
[114] Interview NJ-15-06-001

traditional banking. All shadow banks we have discussed thus far in this chapter have this clear advantage, whereas VC does not.

The interview data further revealed that much of the venture capital firms in Nanjing are supported or owned by the municipal or provincial governments. The aim was to to improve the funding opportunities of POEs, especially technology companies[115]. The function that this group of VC firms provides is clearly supplementary. They provide investments for enterprises, which did not qualify for a bank loan and could not afford the interest rates charged by other financial institutions. This was an immensely interesting insight into the local finance nexus. In order to address poor access to finance, the local and provincial government did not want to improve existing institutions and build up the institutional knowledge required to lend to POEs, and SMEs in particular. They rather sought to establish new institutions, which would use equity- over debt-finance for their ventures.

In some cases, these VC firms would also provide expertise to the government and traditional banks. In Nanjing, high-tech companies can apply for credit guarantees from the government, if they hold a special patent or have developed a special technology[116]. In order to qualify for these government guarantees, enterprises have to submit their financial reports and an investment plan to a government-backed VC firm. They then issue a recommendation on whether to extend the guarantees or not. It would appear that the provincial and local government have used VC firms rather than traditional banks to build up institutional knowledge about the profitability of a business venture and, at least partially, overcome the asymmetry of information. As a general manager of one of these VC funds was eager to point out, they are providing funding to 'innovative companies'[117].

[115] ibid.
[116] Interview NJ-15-05-001
[117] Interview NJ-14-12-007

5.1.6 Wealth Management Companies and Wealth Management Products

Wealth Management Products (WMPs) are financial products, which are sold by banks, independent financial advisors, and firms. The structure of the products is very opaque and since 2016 has seen a wave of regulatory efforts in China. Much of this sector caters towards banks diversifying their risks and moving loans of their books into structured financing vehicles. However, many wealth management companies (WMC) also cater towards POEs and POE finance. The core advantages of WMCs are shorter processing times and a greater acceptance of different forms of collateral. The disadvantage is also similar to many of the institutions we have discussed, namely higher funding costs.

When I interviewed the CEO of a local WMC in Nanjing, he explained that the approval times of a loan through his WMC depends on the collateral offered to secure it[118]. In the best case scenario, loans could be approved on the same day. Larger loans would have to be examined more closely and discussed with his board of directors. Here he was expecting a turn-around time of three to five working days. He explained to me that if a borrower used a car as collateral for a small loan, his loan would be approved without a long wait. He illustrated that the the borrower had two options. He could leave the cars with the WMC until such time as he repaid the loan. The car would be in an impound lot and upon full repayment of the loan, it would be released back to the borrower. He could also choose to let the WMC install a GPS tracker in the vehicle. This would allow him to continue to use it until he repaid the loan in full. The WMC manager stressed that this was a fully legal practice. Such trackers would not be simply installed but had to be registered with the authorities. In either case, the interest rate for these loans would range from 3% to 3.5% per month, or 36% to 42% p.a. This case is interesting for a variety of reasons. First of all, it demonstrates that one of the key reasons for

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[118] Interview NJ-15-03-003

borrowers to approach shadow banks over traditional commercial banks is flexibility. Commercial banks in China only really accept real estate as collateral for bank loans. Shadow banks can be more flexible. Secondly, it also demonstrates that the borrower is willing to pay a higher interest rate in return for this flexibility. In this case here, he even accepts to pay a usurious interest rate for a loan.

Overall, most interviewees talked about investing in WMPs rather than receiving loans from WMCs. One entrepreneur said he had bought a WMP from a bank to diversify his own investment portfolio[119]. The interest rate he received here was 5-6% p.a. Most WMCs, which are issued and sold by banks, are born out of regulatory arbitrage. They allow banks to collect capital, which does not count as bank deposits. These funds therefore do not affect deposit-to-loan ratios and allow. This allows banks to extend more loans[120]. In the case of Nanjing, WMCs also directly extend loans to SMEs[121].

Since the research for this project was conducted, regulators in China have intensified efforts to regulate WMCs and WMPs. They have identified the systemic risk posed by opaque investment products and companies. It was interesting, that NJ-15-03-003, the CEO of a WMC, told me he would welcome stronger and tougher regulation on WMPs. This would allow companies like his to create a brand that investors can trust[122]. Nevertheless, the exact role of WMPs in the Chinese financial system remain somewhat obscure, as they serve both the function of a traditional lender but also provide a range of functions to the formal financial sector and other commercial banks. They role in credit intermediation is less clear than other shadow banks.

[119] Interview NJ-15-03-001
[120] Interview NJ-15-06-001
[121] Interview NJ-15-03-003
[122] ibid.

5.1.7 Credit Guarantee Companies

Credit guarantee companies offer a service whereby they provide a credit guarantee to a bank for a traditional bank loan and collect a few from the borrower. The advantage that they have over other forms of lending is that they can provide access to bank loans, even if the borrower cannot offer enough or the right kind of collateral. The disadvantage for the borrower is the higher funding cost they incur for this credit guarantee. The systemic disadvantage is that loans might be extended on the basis of a credit guarantee, which should have not been extended at all. This means that there is a potential systemic risk emanating from this form of shadow banking institutions.

Credit guarantee companies charge a fee for providing a guarantee and charge 3-4% on top of the initial lending rate of the commercial bank[123]. Other credit guarantee companies charge as much as 30% interest per year[124]. As one interviewee explained, a credit guarantee companies will usually not give the entire loan to the borrower but will keep between 10-20% to manage their risk. So if a borrower receives a loan of 100,000 CNY, he will effectively only receive 80,000 CNY. The remaining 20,000 CNY will go towards interest payment and debt servicing. She went on to explain that because of the high fees associated with credit guarantee companies, many entrepreneurs only use them for short-term financing.

The relationship between traditional banks and credit guarantee companies is not always clear. Loan officers in banks allegedly receive payments from credit guarantee companies to refer customers to them[125]. This entrepreneur described a case of a friend, who sought a collateralised loan from a bank. Despite having collateral to pledge, the loan officer referred him to a credit guarantee company. He eventually secured the loan through the them

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[123] Interview NJ-15-03-002
[124] Interview NJ-14-12-006
[125] ibid.

and had to pay a premium, despite formally qualifying for a bank loan. According to a JSCB loan officer this business practice is outright illegal, yet not completely uncommon for loan officers[126]. He insisted that if anyone was found out, they would face severe consequences and possibly criminal charges. The JSCB loan officer did go on to acknowledge that some of the people he knew have engaged in this practice for personal gains. Credit guarantee companies further can further pose a systemic risk, if the underlying loans become non-performing. The business practices of some of these companies would suggest, that they have in the past lend to borrowers, who should have not qualified for loans. This led to bankruptcies and defaults on loans[127]. If the picture drawn by our interview data is correct, the relationship between credit guarantee companies and commercial banks is worrying. Firstly, it would artificially inflate borrowing costs for all borrowers, even those, who qualify for a bank loan.

Credit guarantee companies can have a positive impact on enterprise development, as they broaden access to finance at a manageable interest rate. If the borrowing costs is as low as 10% p.a. it is still significantly lower than a loan from a P2P lending platform, WMCs, or interpersonal loans. If credit guarantee companies are being used to charge borrowers higher interest rates by forcing them to obtain loan guarantees, then this practice is unlikely to have a positive impact on enterprise development. It is therefore hard to assess the impact of credit guarantee companies overall. In the case of Nanjing, a high-tech incubator pointed out, that credit guarantee companies would be the third point of call for an enterprise in need of a line of credit[128]. This demonstrates that despite the drawbacks and unethical business practices of some, these companies do provide an important service for the local business community.

[126] Interview SH-15-03-001
[127] Interview BJ-14-11-002
[128] Interview NJ-15-03-002

5.2 Functional Analysis

Understanding the institutional landscape of the local shadow banking sector is a good starting point for our analysis. It provided us with a good descriptive overview over the diverse set of institutions that are shadow banking. The functional approach to understanding financial systems stems out of the critique that functions and not institutions are at the heart of the system. Institutions might change but the functions will not. If they cease to provide them, another institution will take their place. The functional approach is helpful in understanding the functions that the shadow banking sector provides in Nanjing. Based on the analysis of my empirical interview data, I was able to identify four central functions provided by shadow banks in Nanjing.

The first can be defined as access to finance. This means that the sector provides access to finance to those, who are excluded from bank finance. They simply have no alternative but to seek a loan from a shadow bank. The sector also provides a service to those, who seek funding outside of the banking sector due to the shortcomings of traditional banks, e.g. long loan approval times. The second core function is the alternative to traditional bank deposits. Surplus-saving units are offered a higher return on their shadow bank deposit than they would receive from a formal bank deposit. The third function is that it provides services to the traditional banking sector, e.g. extending short-term loans so enterprises can roll-over their bank loans or allowing banks to move assets off their loan books. The fourth is the function that it provides to local governments. For example, it allows them to provide funds to private enterprises without relying on the formal banking sector. This section will now discus each of these functions in relation to the local financial environment in Nanjing.

5.2.1 Function I: Access to Finance

Almost all interviewees mentioned that one of the key functions of shadow banks in Nanjing was to provide a broader access to finance for POEs and private individuals[129]. This means that regardless of the price at which they offer loans or the negative externalities, in case of usurious loans, all of these institutions provide an important function: they allow deficit spending units to borrow capital. The question that remains is why they do it? Is it because banks do not want to lend money to them at all, because they are geared towards providing funds for SOEs? Or is the service provided by the shadow banking sector faster and better than that of commercial banks? Our data suggests that it is both.

Many entrepreneurs said that they will first seek a line of credit from a commercial bank. If they are not successful and banks refuse to extend a loan to them, they would seek finance from the shadow banking sector[130]. The executive of a microfinance company confirmed that most of the customers that approach his company have been rejected by traditional banks and now seek alternative sources for finance[131]. Those engaged in interpersonal lending also stressed that their borrowers come to them, when they do not think that they can borrow from a commercial bank[132].

The typical borrower in the shadow banking sector is a small- and medium-sized enterprise[133]. This finding in itself is not surprising. We could even say based on the literature, this was to be expected. As much of the literature points out, commercial banks in China are not the ideal business partner for POEs. The question still remains is if this is the only group of

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[129] Interview NJ-14-12-001, NJ-14-12-002, NJ-14-12-003, NJ-14-12-004, NJ-14-12-005, NJ-14-12-006, NJ-14-12-007, NJ-14-12-008, NJ-14-12-009, NJ-15-02-001, NJ-15-03-001, NJ-15-03-002, NJ-15-03-003, NJ-15-05-001, NJ-15-06-001, NJ-15-06-002, NJ-15-07-001, NJ-15-08-001,
[130] Interview NJ-14-12-001, NJ-15-03-001, NJ-14-12-005, NJ-14-12-003,
[131] Interview NJ-14-12-004
[132] Interview NJ-15-06-002
[133] Interview NJ-14-12-007, NJ-14-12-004, NJ-15-02-001, BJ-14-11-002

customers that seek finance from shadow banks, the ones that are being ignored by commercial banks?

What became apparent throughout the course of the interviews was that entrepreneurs did not only use shadow banks, when banks would not lend money to them but also when the commercial banks were not able to offer loans at the terms they required. There are situations, where an entrepreneur requires an urgent loan for a short-term. For example, if an enterprise encounters a short-term cash-flow problem. A real estate developer emphasised, because he often required loans with a short maturity, he actually preferred to use shadow banks over commercial banks[134]. In his case, the most common use of shadow banks was in fact, when we needed money urgently. He has qualified for bank loans in the past, but due to the lengthy loan approval procedures at commercial banks, he cannot rely on them for urgent financing requirements. Other entrepreneurs have voiced a similar rationale, with loans from shadow banks having a maturity of one to three months[135], sometimes just days[136]. Another entrepreneur expressed similar sentiments, saying that even if they have had a bank loan in the past, they would often seek finance from shadow banks, if he needed the money quickly[137].

This is interesting, because the literature tells us that banks should have been able to use their business relationship to reduce the asymmetry of information between lender and borrower. They should have been able to acquire soft and hard information about the client and his creditworthiness. Ultimately, this should have ultimately improved access to bank loans. It appears that for banks, it does not matter whether a borrower is a returning or a new

[134] Interview NJ-14-12-005
[135] Interview NJ-15-03-001
[136] Interview NJ-14-12-007
[137] Interview NJ-14-12-001

customer. It still takes at least 30 days for a loan to be approved, regardless of the size of the loan.

Entrepreneurs also made clear, that they tend to use shadow banks for small loans and banks for larger loans[138]. Despite the assurances by moneylenders that in theory they can lend as much capital as a potential borrower requires, it appears as if the the shadow banking sector is only used for small loans[139]. One high-tech incubator explained that in his experience, POEs and SMEs only resorted to shadow banks, if they encountered cash-flow problems[140]. They will not use these funds to finance large long-term investments. As the JSCB loan officer made clear in his interview, his bank will not give out any cash-flow bridge loans, i.e. short-term loans to cover a cash-flow problem, and customers knew that[141]. The data suggests that there is a two tier system for finance in China. Long-term and low-cost loans come from commercial banks. Short-term and high-cost loans come from the shadow banking sector.

When we discus access to finance, the case of a biotech entrepreneur in Nanjing was particularly interesting[142]. He had so far only relied on shadow banks and interpersonal loans in particular. He emphasised that even for his peers, his experience was somewhat usual. His friends and he and engaged in mutual lending of 500,000 to 1m CNY. What made his example so interesting is that him and his friends had never charged each other interest on the loans they had extended. Especially when he started his biotech company, his profit margins had been too low to service an interest-bearing loan. This concept of interest-free interpersonal loans is not unheard of in China. Especially in rural China, farmers often lend money to other farmers without interest. What is striking here is that this soft institution seems to have

[138] Interview NJ-15-03-001.
[139] Interview NJ-14-12-007
[140] Interview NJ-15-03-007
[141] Interview SH-15-03-001
[142] Interview NJ-15-05-001

survived even among modern and upcoming entrepreneurs. In the rest of my interviews, I have not encountered any other examples of interest free interpersonal loans. This does suggest that this is an isolated incident. Nonetheless, it is one that is worth highlighting.

Overall we can see how shadow banks have improved the access to finance by supplementing traditional commercial banks. In some cases, shadow banks offer a necessary substitute to enterprises, which cannot get access to finance. In others, shadow banks offer an additional option with a faster service and a higher price. We see that shadow banks are quicker to make lending decisions and more flexible when it comes to the terms of the loan. They are more flexible when it comes to loan maturities as well as when it comes to the type of collateral they accept – if any. Across all interviewees, this increased flexibility is understood to be worth the price of higher funding cost, mainly because this loans are only taken out for a short period.

5.2.2 Function II: Alternative to Bank Deposits

> *'When you look at it, the shadow banking system is just about the high interest rates to attract the savings.' – Local Economics Professor in Nanjing*[143]

Due to the nature of China's financial system, investment avenues for surplus-saving units are traditionally very scarce. Because of capital controls, the average Chinese citizen cannot simply invest their money abroad. As discussed in Chapter Three, the domestic stock-market in China makes investing in the equity and bond markets not appealing to everyone. Real estate has often been able to draw much investment but in an attempt to curb rising housing prices, regulation has made it more difficult to own multiple residential properties. So what will surplus-saving units do with their hard earned financial capital? Is it save to say that it will find another productive use within the economy? What became apparent in my research is that the shadow banking sector is needed by both groups: those who need money and those who have it. The shadow banking sector is not only driven by the demand for loans outside of the traditional banking sector, but also by the supple of capital from those, who hold plenty of it. Following the analysis of my interview data, we can distinguish between two types of investments made in the shadow banking sector: investments, which are made because of a lack of alternatives research, and high-return-seeking-investments. The latter are highly speculative investments made by surplus saving units.

I often heard that low deposit interest rates and very limited ways to invest money were the cause of excess funds flowing into the shadow banking sector[144]. It provides an '*important parallel use for funds*'[145]. A venture capitalist further pointed out that especially in Jiangsu province, many entrepreneurs were used to extending loans directly to other

[143] Interview NJ-14-12-009
[144] Interview NJ-14-12-008, NJ-14-12-007, NJ-15-07-001,
[145] Interview NJ-14-12-007

entrepreneurs, because they have enough information about these businesses to make an informed decision to invest[146]. For the CEO of a WMC, it was his declared goal to create a product, which would rival bank deposits[147]. He would be able to absorbs funds from the average citizen. Customers should then make an informed choice of whether to invest their money in the stock market, deposit it in the bank or invest it in a WMP. They may also still use WMPs and other shadow banking products in order to supplement their investment portfolio, when they seek higher-risk investments in addition to low-risk bank deposits.

Within the shadow banking sector, there are also various institutions, which use high interest rates to attract financial capital from surplus-saving units for high-risk investments[148]. They value high returns in the short-term over small or medium returns in the long-run. The issue is that due to regulatory restrictions on deposit interest rates, surplus-saving units are actively looking for any return that is higher than that of bank deposits[149]. At the moment deposit interest rates in the shadow banking sector are not subject to any regulations. Shadow banks can promise surplus-saving units high interest rates, often more than double of the deposit interest rate[150].

The issue with 'depositing' once funds in the shadow banking sector is the risk that is associated with it. A moneylender said that those institutions promising interest rates in excess of 20% were dishonest, because no company's profit margin could afford it[151]. He went on to say that even 20% is hard to achieve across all loans and if he managed to do that, I would just sit at home and do nothing. It was his way of saying that any institution, which

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[146] Interview NJ-15-06-001
[147] Interview NJ-15-03-003
[148] Interview NJ-15-08-001
[149] Interview NJ-14-12-009
[150] Interview NJ-14-12-002
[151] Interview NJ-14-12-005

promised 20% or more return was likely to be dishonest to their investors. On a similar note, many interviewees made anecdotal references to pyramid schemes, where they or their friends had expected high returns but often lost their entire investment. These stories are not only limited to small time lenders. One of China's largest P2P financing platform, which was discovered to be a US$7.6bn Ponzi Scheme (Mitchell, 2016). Following the 2008 financial crisis, similar stories emerged about western investments products, most notably about Bernie Madoff's Ponzi scheme. What is different here is the Chinese investor's motivation to invest in shadow banking products. On the one hand there is little denying the fact that high interest rates are attractive. On the other hand, surplus-saving units do not have many other avenues for investment. An investment banker with a large SOCB, also emphasised a cultural component when they talked about Chinese investments in high-risk high-yield products or institutions[152]. In his view, many Chinese people are drawn towards gambling and speculative behaviour. This attitude towards risk means, that they like to invest in high-risk, high yield products, e.g. P2P financing platforms. This implies, that investors are aware of the dangers of such investments. If it is successful they win, if not they loose. While I am personally not convinced by generalisations of certain cultures and personality traits, at the time, my research assistant nodded in agreement.

When investors, or quasi-depositors, loose their money, it is most likely to be a personal tragedy. However due to the opaque nature of some of the shadow banking sector, in particular the interbank asset sector, it can have wide-ranging ramifications. Due to the implied deposit guarantees, commercial banks might feel obliged to cover their customer's losses. In the past they have repeatedly paid their customers, despite being under no formal

[152] Interview NJ-14-12-008

obligation to do so[153]. Banks often do that out of fear that a mass of angry customers might lead to a CBRC investigation, which would ultimately lead to the discovery of great wrongdoing.

Shadow banks and their products are not necessarily negative and if investors are aware of the risks involved, it is their own personal issue, if the investment product does not work out. If on the other hand banks start feeling obliged to compensate investors for their losses despite being under no legal obligation to do so, and frankly only do that to hide other wrongdoing, this create serious systemic risk for the entire financial system. The selection bias of my sample might mean that this is an isolated incident. We will not know, until large defaults make it impossible for banks to compensate investors.

Overall we can rightly say that China's repressed financial system, combined with a money-saving culture amongst its citizens, means that surplus-saving units are actively looking for avenues to invest their money. Interest rates on deposits at commercial banks are low. Therefore, large amounts of capital are eagerly waiting to find a productive use. The issue is that due to the regulatory environment of the sector, paired with regulatory arbitrage, it is riddled with institutions, which do not provide a high-quality investment product or which purposefully mislead investors. Shadow banking therefore provides a valuable service, however experiences and operations vary largely across the sector.

5.2.3 Function III: Services to the Formal Banking Sector

The third function provided by the shadow banking sector in Nanjing can be broadly described as services to the formal banking sector. As my interview data has uncovered, shadow banks exist in the underbelly of traditional commercial banks and provide valuable functions to them. These functions range from providing additional liquidity directly to

[153] Interview SH-15-03-001

commercial banks, over allowing banks to roll-over existing loans, and to extend loans, which they otherwise could not.

The issue of loan roll-overs is widely documented in China. It is not unique to the local financial environment in Nanjing. This is clearly one of the key function, that the sector provides to banks and banks' customers alike[154]. In China, the maturity for bank loans is usually one year[155]. The issue is that many investments will not be profitable or even break even after a year. If an entrepreneur buys a piece of machinery for example, it will not generate profit in the first year of its use. When the loan matures after one year however, the commercial bank needs to collect the entire outstanding balance before it can re-extend the loan. This is a regulatory requirement to prevent the built up of NPLs. It is a lesson learned from the end of 1990s, where banks had re-extended loans over and over again, without the slightest chance of repayment. The roll-over process takes between 5-7 days. It is not as long as a new loan application, which would take at least 30 days. The roll-over is not considered as a new loan application. Many shadow banks, from interpersonal lenders to microloan companies, WMPs, or P2P financing platforms, will offer the entire loan at an excruciatingly high interest rate for a short period of time. For example, on a 2m CNY loan for a loan roll-over, the lender will ask for 2% interest rate (182.5% p.a.) or around 30-40000 CNY for a few days[156]. This loan is considered safe, because banks are likely to re-extend the loan.

Loan roll-overs can however also have negative consequences. An investment banker, who was originally from Zhejiang Province, highlighted that this practice had failed in Wenzhou a few years ago, when banks did not re-extend the original loans and entrepreneurs

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[154] Interview NJ-14-12-006, NJ-14-12-008, NJ-15-06-001
[155] Interview NJ-14-12-006
[156] ibid.

had to service debt at astronomically high costs[157]. This comes at little surprise, as loans in China are allocated not on a market price but through loan quotas. These quotas can change without any prior warning. If this happens the borrower is left with the shadow bank loan as debt. As he had planned to pay off the entire balance within a week, he is now stuck with a loans that he cannot afford. In the case of Wenzhou, this led to suicides of entrepreneurs, who saw no way out[158]. In order to address these issues, the city of Nanjing has set up a 'capital pool' that allows POEs to borrow money at a lower rate in order to roll-over their loans[159]. POEs can borrow for money for a loan roll over at 2% interest rate per month. The interviewee told us that it mostly took banks in Nanjing a maximum of 10 days to roll-over a loan. As the borrower therefore only needed the loan for 10 days, he was able to afford a monthly interest rate of 2%. After all he would pay interest pro rate. It still leaves them exposed to the risk of a changing loan quota while their initial bank loan is re-extended. This 'capital pool' can be seen as an attempt by the municipal government to curb shadow banking and its business model on relying on loan roll-overs, while not addressing the core of the problem: the rigidity of rules governing bank loans in China. I was also not able to find more information on the longevity of these capital pools and how successful they were in the long-run.

If we see this function as undesirable, it could easily be curbed if not eradicated through a change in regulation. If banks were either willing to extend loans with a longer maturity or were more flexible, when it came to loan renewals, the shadow banking sector would not need to provide this function. After all it traps, at least for a short period, a potentially healthy borrower in a loan, he can hardly afford. Loan roll-overs are a China-specific phenomenon and the existence of a Nanjing city capital pool to address them shows

[157] Interview NJ-14-12-008
[158] ibid.
[159] Interview NJ-15-06-001

that local authorities are aware of the issues surrounding them. For banks, this system clearly works well and does help prevent the built up of NPLs in commercial banks – at the expense of a potential NPL built up in the shadow banking sector and the expense of the borrower.

The shadow banking sector further provides an important function by providing more liquidity to commercial banks. Especially in the aftermath of the 2008 financial crisis, the government stimulus and the following loan expansion, this form of shadow banking has grown immensely[160]. Entrusted loans for example allow banks to extend loans, without those loans appearing in the books of the commercial bank. This allows banks to lend more money, for it does not affect their loans to assets ratio. Investors can purchase financial products from a bank-owned trust company, but these offer not the same protection as bank deposits and offer a higher yield[161]. These trust companies have to be legally separated, as their loans to not appear on the bank's balance sheets. The problem is, as we have seen in the section on Function II, that investors might not be aware that the product they bought does not offer the same protection for their money as a traditional bank deposit. If a bank is ultimately liable for it, despite not being on the bank's balance sheet, this creates unforeseeable systemic risk[162]. A former banker turned venture capitalist expressed his deep concerns and worries about the hidden systemic risk, induced by the shadow banking sector's supplementary function to commercial banks[163]. The research conducted for this PhD only grazed the issue but repeated references to this risk means, that I ought to address it.

Many of the supplementary functions that the sector provides to commercial banks are the by-product of regulation. In the case of loan roll-overs, it is the direct result of

[160] Interview BJ-14-11-001
[161] Interview NJ-14-12-009
[162] ibid.
[163] Interview NJ-15-06-001

regulatory efforts to curb NPLs. In the case of off-balance sheet lending, it is a regulatory arbitrage. Regulators seem to be oblivious to the first as at the time of writing, the practice of loan roll-overs continues. Local authorities seem to have a different view on it. As the creation of the capital pool in Nanjing demonstrates, local authorities are painfully aware that loan roll-overs pose a significant financial burden on entrepreneurs. Hence they created these capital pools. Regulators seem however to be painfully aware of the systemic risk emanating from the shadow-banking sector. Both 2016 and 2017 saw a wave of regulation and crack downs on what is assumed to be systemically risky shadow banking.

5.2.4 Function IV: Services to Local Governments

My interview data further highlighted a fourth function of the shadow banking sector. Shadow banks provide services to local governments. In particular, our interview data points towards two distinct examples. The first is that it allows local governments to circumvent restrictions on local government financing by issuing debt even though, they are legally not allowed to. The second is that it allows local governments to disperse financial capital to enterprises without having to rely on commercial banks. Both are functions to the local government, but their effect and impact is very different.

Circumventing restrictions on local government finance through the shadow banking sector is nothing that is Nanjing-specific[164]. In fact, it has been a reoccurring phenomenon in Modern China. The scale on which this has happened has become increasingly worse with the 2008 the stimulus package after the global financial crisis. Here it was left to local governments to generate the funds necessary to finance infrastructure investments. According to Chinese law, local governments cannot issue debt. As a result, many used financial engineering to design products like local-government financing vehicles (LGFC). LGFCs are financial products

[164] Interview BJ-14-11-001

that can be bought by banks and other institutional investors. They are not meant to be sold to retail investors, i.e. private households and citizens. From the perspective of institutional investors, these LGFCs provided a good and foremost save investment. As this is a loan to the government, these are considered to be perfectly safe. The problem is that through other shadow banking products, e.g. WMPs, these LGFCs found their way into the investment portfolios of retail investors. We could rightly ask, why this is a problem? The issue is that this financial capital was given to local governments as loans to fund long-term investments with low-returns, but it was used to fund the 2008 government stimulus package. Therefore, the underlying investment for the LGFC is most likely not as safe as it should be, but has nonetheless found its way into many financial products for retail customers, e.g. WMPs or other securities. This prompted one of the interviewees to say that most risk within the shadow banking sector comes from local governments[165].

Local government finance is an interesting topic in China and one that requires more attention. The problem in assessing the complex relationship between local government finance and the shadow banking sector in its entirety is access to data. There is no dataset with coherent and comprehensive data, which would allow us to analyse of many and which LGVCs are at risk or have become non-performing. My research purely uncovered that there are linkages, which might pose a threat to the overall stability of the financial system. If local governments are increasingly unable to service their debt-like liabilities, this puts many financial products at risk. Such products were often sold to retail investors with implicit guarantees, which made them sound as safe as bank deposit. If they are not, this poses a

[165] Interview NJ-15-08-001

significant risk. Without wanting to explain it further, one interviewee said, that in Nanjing this is already the case[166].

The other function provided by the shadow banking sector to local governments is one we best describe as assistance to local economic development. The sector allows local governments to disperse funds to local POEs without having to rely on commercial banks. It further allows them to steer local the local economy towards a certain type of economic development. My institutional analysis covered the role of government-backed VC funds. Through these funds, the municipal and provincial governments can make equity investments in local high-tech start-ups and growth-stage enterprises. This is particularly interesting for two reason: first it highlights an institutional understanding of the shortcomings of capital allocation through commercial banks. The local government seems to be convinced that it is more beneficial to make equity-investments in companies rather than give money to banks for them to engage in POE and SME lending. Secondly, it highlights another potentially positive impact of the shadow banking sector. In local governments use it to actively steer economic development towards knowledge-based industries.

Overall the functions provided by shadow banks to local governments is a very interesting function of the shadow banking sector. The analysis of my interview data allows me to sketch some of them. Many of the issues surrounding LGFCs have since been addressed, but local government finance in China is still a very interesting topic.

5.3. Concluding Remarks

The analysis of my empirical interview data has uncovered a vibrant and highly active shadow banking sector in Nanjing. As the institutional analysis described and analysed the institutions within it range from interpersonal lending, over microloan finance, to P2P

[166] Interview NJ-15-06-001

financing platforms and WMCs. The institutional landscape is diverse, covering formal and informal, legal and illegal institutions. What unites them is that they are all engaged in some aspect of credit intermediation. They are also united in their key competitive advantage over commercial banks: *flexibility*. A common theme in my interviews was that they are more flexible in accepting different forms of collateral. Chinese commercial banks are very limited in what they consider as collateral for loans. They almost exclusively focus on real estate and do not accept any other forms of collateral, e.g. purchase orders or intellectual property. This categorically excludes certain type of entrepreneurs from access to bank loans. If an entrepreneur does not own real estate, he cannot get a bank loan. If he has already pledged his real estate for a loan and requires additional finance, even if it is only short term to fund an existing order, he can also not get a bank loan.

My analysis also discovered that all but one shadow bank has a competitive advantage over commercial banks. With the exception of venture capital, all institutions in the local shadow banking sector are able to provide loans much faster than commercial banks. Rather than wait between one and three months, the potential borrower can find out within days, sometimes even hours or instantaneously, if he is entitled to a loan. He will also know in advance how high this loan will be. With a commercial bank, a potential borrower has to wait at least 30 days to find out, if he gets a loan and only then will he find out, how much the bank is willing to lend to him. Even formal shadow banks, e.g. microfinance institutions, offer much shorter loan approval times than commercial banks. According to the interviewees in this sample, they are still able to control risk as good as commercial banks would be. As there is no comprehensive data available, it is difficult to validate these claims.

All of these advantages come at a cost: higher funding costs. With two exceptions, all shadow banks charge high interest rates. Except for venture capital firms, which do not provide debt-finance, and some interpersonal loans, all of the institutions covered here charge interest rates which go far beyond the benchmark lending rate for commercial banks. There are two reasons we can conclude from our analysis. On the demand side, the customer is willing to pay a higher price for the service provided. The deficit-spending unit is willing to pay a premium for a quicker loan approval. As he uses the loan for short-term financing needs and plans to repay the loan quickly, his overall financial burden is limited. On the supply side, the surplus-spending unit is likely to demand a higher interest rate for their deposit-like investment. They invest in the shadow banking sector to receive a larger return than they would from the formal banking sector or the financial markets. So on the one hand, it is more expensive for shadow banks to acquire capital but on the other hand is a customer, who is willing to pay a premium for their loans. Lastly, the risk exposure of shadow banks and their NPL ratio is most likely also higher than that of commercial banks. This means they have to charge higher interest rates to account for loans in their portfolio, which are underperforming or not performing at all.

Another interesting finding was the role of interpersonal relationships in this sector – for loans from hard as well as soft institutions. Guanxi at times makes lending possible and can even serve as a form of collateral. In the case of the biotech entrepreneur, it had even replaced conventional interest payments. The concept of Guanxi as collateral is interesting to explore further. It appears as if those shadow banks, which rely on it (e.g. interpersonal lending) tend to do better than those, who do not (e.g. P2P lending). Interpersonal relationships seem to compel borrowers to pay back their loans in order to *save face*, i.e. not loose their social standing and fall into disrepute.

The functional analysis of the sector highlighted four distinct functions provided by the sector: access to finance, alternative to bank deposits, services to other financial sectors, and services to local governments. Access to finance is the most obvious of all of these functions. As credit is intermediated through an additional financial sector, it gives more deficit-spending units the opportunity to obtain finance. At the same time, it provides surplus-spending units with an additional opportunity to *deposit* their funds within this sector. These are legally not deposits, as Chapter Three highlights that only banks are allowed to accept deposits in China. This is not always clear to surplus-spending units. The latter two functions are more surprising, because they highlight the interconnectedness of the shadow banking sector within the Chinese financial system. They expose two important relationships. On the one is the relationship with the formal financial sectors, i.e. the banking sector and the financial markets. This suggests that shadow banks provide an important function to them too. It does not exist in a vacuum alongside commercial banks or the stock market. As a sector, it is at varying degrees an active participant in the financial system. The second is the relationship with local governments. They which have in the past relied heavily on the sector for local government finance and continue to rely on it to fund and steer local economic development. This sheds some light on the very interesting field of local government financing in China.

From an analytical perspective, there are no challenges posed to the economy by the first two functions. A broader access to finance will lead to higher investment levels and therefore stimulate the economy. An alternative to bank deposits would allow surplus-saving units to diversify their investment portfolio and enjoy higher returns on their investments (or *quasi-savings*). The latter two functions however are symptoms of underlying problems within the formal financial system as well as the commercial banking sector. The services it provides to the banking sector are largely the product of either ill-attempted regulation or outright regulatory arbitrage. For example, the process of loan roll-overs means that at any given time, the deficit-spending units need to borrow money outside of the formal financial sector just to get their old loan renewed. Furthermore, regulation on deposit-to-loan ratios and loan quotas compel banks to move assets into the interbank shadow banking sector just to meet requirements. Similarly, the functions provided to local governments are symbolic for underlying issues. The rise of shadow banking as a source for local government financing is worrisome. The use of shadow banks for local industrial policy is a symptom of the wider problems of Chinese commercial banks and their loan policies.

This chapter has an important implication for theory. The hypothesis developed in the previous chapter proposed that if the formal financial sectors cannot perform the functions they ought to, the shadow banking sector will. The analysis has demonstrated in Nanjing, this sector is providing four distinct supplementary services for surplus-spending units, deficit-spending units, the banking sector and the financial markets. It has further at times raised the question of whether this role is strictly supplementary, i.e. in addition to the formal financial sector, or alternative, i.e. as an outright replacement. The case of informal finance and interpersonal loans has highlighted this question. If a borrower can get access to an interest-free loan, what will compel him to even consider an interest-bearing bank loan. The following chapter will further investigate this aspect, drawing on survey data gathered in Beijing.

Chapter 6: The Shadow Banking Sector in Beijing

Beijing, the capital of the People's Republic of China, is one of the most developed cities in the country. Together with Shanghai and Guangzhou, she is what is considered a Tier-I city. Her striving local economy is fuelled not only by her role as the centre of power in the country, but also by a vibrant and diverse economic landscape. It is home to some of the largest enterprises in China, to SOEs, POEs, and start-ups alike. It therefore provides us with another great case study to examine, which functions the shadow banking sector is providing to the local economy?

The methodology for this chapter is different than in the previous chapter on Nanjing. While the former relied solely on interview data collected through semi-structured interviews, this chapter seeks to combine findings from a survey to correlate and triangulate them with some of the earlier conclusions drawn in this study. Between October 2014 and August 2015, a total of 27 entrepreneurs provided key insights into which sources of finance they use, which sources of finance they prefer to use and how the access to finance has affected their business. I conducted an online survey aimed at entrepreneurs and finance professionals. This survey was posted online in simplified Chinese characters and the link was widely shared amongst entrepreneurs in Beijing and the rest of China. A very detailed description of the survey, its scope, target group and sample can be found in Chapter 2. A full list of all survey questions and their translation is included in the appendix.

Using this data and combining it with the insights provided by interviews conducted in Beijing, this chapter will first provide an institutional analysis of the shadow banking sector in the city. The data allows us to examine, which shadow banks entrepreneurs used in the 12-months before taking the survey. Which institutions are frequently used by the population of this survey? Furthermore, the survey data will allow us to answer the question, if entrepreneurs use shadow bank because they are accessible or whether they prefer using them. The institutional analysis will examine, whether the usage of these institutions is a product of preference or necessity. Do entrepreneurs use the shadow banking sector, because there is little to no alternative from the formal financial sectors or because of the services provided by shadow banks? Following the institutional analysis, this chapter will engage in a functional analysis of the shadow banking sector in Beijing. Due to the limitations of the survey data, this chapter will only partly analyse the functions of the shadow banking sector, which were discussed in detail in the Chapter on Nanjing. While the qualitative data allowed a more comprehensive analysis of different functions, the scope of the survey data and its population only provided meaningful insights into one of its functions. Therefore, this chapter will solely focus on how the shadow banking sector is affecting the access to finance for entrepreneurs. Do entrepreneurs feel that the local financial system in Beijing is providing adequate access to finance? Which enterprises, if any in particular, rely on this sector as a source of finance and what fraction of their total finance requirements derive from it?

6.1. Institutional analysis of the shadow banking sector in Beijing

Through the institutional analysis, this chapter seeks to provide a comprehensive overview over which particular kind of shadow banks make up the capital's shadow banking sector. By mapping out the institutions in Beijing, we can identify and highlight differences with the institutional landscape of the sector in Nanjing.

The data gathered for this study allowed us to analyse this at two specific points. First of all, through asking, which financial institutions entrepreneurs had used in the 12 months prior to taking the survey. Options included a range of financial institutions from the shadow banking and the formal banking sector. The literature review highlighted a broad array of different institutions, but the important questions is, which specific institutions entrepreneurs frequently use. Secondly, entrepreneurs were asked to rank the same institutions according to their preference and according to their accessibility. The former allows us to get an understanding, which sources of finance are actively being used and sought after. The latter allows to get an insight into why they are used. Is it simply, because there is no alternative or do entrepreneurs enjoy using them? The findings will be discussed below and will allow us to refine our understanding of the institutional make up of the shadow banking sector in Beijing.

6.1.1. Usage of financial institutions over a 12-months period

The two tables below show the use of various financial institutions over the twelve-months period prior to taking the survey. The data is analysed according to industry, number of employees, turnover and years in operation (age). The various sources of finance were further grouped as internal finance, shadow banking, banking and others. Internal finance is a proxy for all forms of finance, which did not involve outsiders. This is in particular retained earnings and owner's contributions. Shadow banking is a proxy for all shadow banking institutions, which were identified in the literature review. Banking is a proxy for loans from commercial banks, which include SOCBs and all other commercial banks. An option others was used to allow entrepreneurs to highlight forms of finance, which the author had not included in the survey. As there is no clear institutional breakdown of this option, we cannot establish the extent to which these were merely other institutions in the shadow banking sector, which were not included in the survey's comprehensive list. The table provides an overview of the mean for this figures across the before-mentioned groups.

Table 8 provides an institutional breakdown according to industry, number of employees, turnover and years in operation (age). The table provides an overview over how much on the total finance each group received on average from each of the institution. As outlined in the methodology chapter, the survey allowed participants to choose from an array of different sources of finance. The table only included those, which were actually included by the participants.

Use of different forms of finance according to group

Industry	**Responses**	**Internal**	**Shadow Banking**	**Banking**	**Others**
Construction	2	0,00%	25,00%	50,00%	25,00%
Consulting	4	47,50%	45,00%	7,50%	0,00%
Food	1	50,00%	0,00%	0,00%	50,00%
Garments	1	0,00%	100,00%	0,00%	0,00%
IT	1	0,00%	20,00%	80,00%	0,00%
Machinery and Equipment	3	33,33%	43,33%	0,00%	23,33%
Other	5	73,00%	20,00%	0,00%	7,00%
Transport	1	60,00%	40,00%	0,00%	0,00%
Average		32,98%	36,67%	17,19%	13,17%

Note: No responses for firms operating in Chemicals, Textiles and Other Manufacturing

Employees	**Responses**	**Internal**	**Shadow Banking**	**Banking**	**Others**
Self-employed	2	0,00%	100,00%	0,00%	0,00%
1-4 Employees	3	86,67%	13,33%	0,00%	0,00%
5-9 Employees	3	100,00%	0,00%	0,00%	0,00%
10 - 19 Employees	1	0,00%	20,00%	80,00%	0,00%
20 - 99 Employees	8	44,38%	30,00%	15,00%	10,62%
100+ Employees	1	0,00%	70,00%	30,00%	0,00%

Turnover	**Responses**	**Internal**	**Shadow Banking**	**Banking**	**Others**
<10,000 RMB	3	100,00%	0,00%	0,00%	0,00%
10,000 - 100,000 RMB	6	31,67%	43,33%	16,67%	8,33%
100,000 - 999,999 RMB	4	75,00%	25,00%	0,00%	0,00%
>1,000,000 RMB	5	25,00%	42,00%	26,00%	7,00%

Age	**Responses**	**Internal**	**Shadow Banking**	**Banking**	**Others**
≤ 1 year	3	100,00%	0,00%	0,00%	0,00%
≤ 5 years	10	55,50%	34,00%	2,00%	8,50%
≤ 10 years	3	20,00%	20,00%	60,00%	0,00%
≤ 15 years	2	0,00%	85,00%	15,00%	0,00%

Source: Online Survey among entrepreneurs in Beijing between October 2014 and August 2015

Table 7 - Use of Finance according to Group

In the last 12 months, what proportion did the following sources of finance make up?

Industry	Responses	Internal Funds or Retained Earnings	Owners' contribution or issued New Equity Shares	BOC	ICBC	P2P	Microloan	VC	Loan from Friends	Loans from Relatives	Loan from another Private Lender	JSCB Loan	Other Bank Loan	Others
Construction	2	0,00%	0,00%	50,00%	0,00%	0,00%	0,00%	0,00%	25,00%	0,00%	0,00%	0,00%	0,00%	25,00%
Consulting	4	47,50%	0,00%	7,50%	0,00%	0,00%	0,00%	0,00%	5,00%	40,00%	0,00%	0,00%	0,00%	0,00%
Food	1	50,00%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	50,00%
Garments	1	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	100,00%	0,00%	0,00%	0,00%	0,00%
IT	1	0,00%	0,00%	0,00%	60,00%	0,00%	0,00%	0,00%	0,00%	0,00%	20,00%	20,00%	0,00%	0,00%
Machinery and Equipment	3	3,33%	30,00%	0,00%	0,00%	33,33%	10,00%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	23,33%
Other	5	14,00%	59,00%	0,00%	0,00%	0,00%	0,00%	2,00%	11,00%	3,00%	0,00%	4,00%	0,00%	7,00%
Transport	1	60,00%	0,00%	0,00%	0,00%	0,00%	40,00%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%
Average across sample		21,85%	11,13%	7,19%	7,50%	4,17%	6,25%	0,25%	5,13%	17,88%	2,50%	3,00%	0,00%	13,17%

Note: No responses for firms operating in Chemicals, Textiles and Other Manufacturing

Employees	Responses	Internal Funds or Retained Earnings	Owners' contribution or issued New Equity Shares	BOC	ICBC	P2P	Microloan	VC	Loan from Friends	Loans from Relatives	Loan from another Private Lender	JSCB Loan	Other Bank Loan	Others
none	2	0,00%	0,00%	0,00%	0,00%	50,00%	0,00%	0,00%	0,00%	50,00%	0,00%	0,00%	0,00%	0,00%
1-4 Employees	3	86,67%	0,00%	0,00%	0,00%	13,33%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%
5-9 Employees	3	36,67%	63,33%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%
10 - 19 Employees	1	0,00%	0,00%	0,00%	60,00%	0,00%	0,00%	0,00%	0,00%	0,00%	20,00%	20,00%	0,00%	0,00%
20 - 99 Employees	8	20,00%	24,38%	12,50%	0,00%	0,00%	0,00%	1,25%	13,13%	15,63%	0,00%	0,00%	2,50%	10,62%
100+ Employees	1	0,00%	0,00%	30,00%	0,00%	0,00%	0,00%	0,00%	20,00%	50,00%	0,00%	0,00%	0,00%	0,00%

Turnover	Responses	Internal Funds or Retained Earnings	Owners' contribution or issued New Equity Shares	BOC	ICBC	P2P	Microloan	VC	Loan from Friends	Loans from Relatives	Loan from another Private Lender	JSCB Loan	Other Bank Loan	Others
<10,000 RMB	3	100,00%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%
10,000 - 100,000 RMB	6	15,00%	16,67%	16,67%	0,00%	0,00%	0,00%	0,00%	8,33%	35,00%	0,00%	0,00%	0,00%	8,33%
100,000 - 999,999 RMB	4	22,50%	52,50%	0,00%	0,00%	0,00%	10,00%	2,50%	8,75%	3,75%	0,00%	0,00%	0,00%	0,00%
>1,000,000 RMB	5	10,00%	15,00%	6,00%	12,00%	20,00%	0,00%	0,00%	8,00%	10,00%	4,00%	4,00%	4,00%	7,00%

Age	Responses	Internal Funds or Retained Earnings	Owners' contribution or issued New Equity Shares	BOC	ICBC	P2P	Microloan	VC	Loan from Friends	Loans from Relatives	Loan from another Private Lender	JSCB Loan	Other Bank Loan	Others
1 year	3	83,33%	16,67%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%
2 - 5 years	10	28,00%	27,50%	0,00%	0,00%	0,00%	4,00%	1,00%	7,50%	21,50%	0,00%	0,00%	2,00%	8,50%
6 - 10 years	3	0,00%	20,00%	33,33%	20,00%	0,00%	0,00%	0,00%	10,00%	3,33%	6,67%	6,67%	0,00%	0,00%
11 - 15 years	2	0,00%	0,00%	15,00%	0,00%	50,00%	0,00%	0,00%	10,00%	25,00%	0,00%	0,00%	0,00%	0,00%

Source: Online Survey among entrepreneurs in Beijing between October 2014 and August 2015

Table 8 - Use of sources of finance over the 12-months prior to the survey by group

On average across the sample, entrepreneurs indicated that overall they had used internal finance for 32.98%, shadow banks for 36.67%, and formal bank loans for only 17.19% of their financing needs. From this summative overview, we can see that enterprises relied more on external finance, i.e. banks and shadow banks, than internal finance. We can further see that enterprises relied more on shadow banks than on formal bank loans for their financing needs. These summative figures hence seem to confirm findings from the literature review as well as the fieldwork in Nanjing. Privately owned enterprises tend to rely more on internal finance and shadow banking, than they do on formal bank loans. As this chapter will explore in greater detail, bank loans are the most preferred source for external finance, but shadow banks are more accessible. So in the absence of access to formal bank loans, entrepreneurs have to rely on shadow banks.

Due to the limitations of this sample, we cannot conduct a meaningful comparison of the use of various financial institutions across industries. However, the survey data allows us to look at the use of financial institutions across different sizes of enterprises. We can measure the size of an enterprise in two ways. One is in terms of its revenue and the other is in terms of the total number of employees. The different size categories were adopted from the World Bank Climate Investment survey to allow for comparability of our findings. The data further allows us to group enterprises according their age, i.e. years of operation. This is a particularly interesting insight, for the literature suggests that banks collect information on their borrowers and potential borrowers over time. Hence we should expect the use of bank finance to rise with age.

We would expect that enterprises with fewer employees and lower turnovers use more shadow banks than any other group in the sample. Enterprises with fewer employees are less likely to possess physical assets, which they could use as collateral to secure bank finance. Enterprises with a lower turnover can also be seen as less likely to honour loan agreements and make regular payments. They therefore pose a higher default risk than enterprises with a higher turnover. Our analysis of the survey data seems to confirm this: smaller enterprises with few staff or low turnover relied on internal finance or shadow banks. The two self-employed entrepreneurs received all of their finance from shadow banks. Half of their finance came from a P2P platform, while the other half came from interpersonal loans (*loans from relatives*). As enterprises get larger, they rely more and more on external finance. They first appear to use more shadow banking and ultimately move towards using bank loans. This suggests that shadow banking is an intermediary step on the between internal finance and formal bank loans. Smaller enterprises are excluded from external sources of finance, whether these belong to the shadow banking sector or the formal financial system. As they grow in size, enterprises are able to secure external finance but still cannot gain access to bank loans. Shadow banks on the other hand seem willing to lend to those entrepreneurs. At a later point in their growth trajectory, they qualify for bank loans and then make use of them.

An interesting finding of our analysis was the use of shadow banks among large enterprises. While small enterprises certainly used shadow banks more than banks, the use amongst large enterprises was still widespread. For example, those with 20 to 99 employees, still received 30% of their finance from shadow banks. The largest enterprise in this set, with over 100 employees, still used shadow banks for 70% of its financing in the 12 months prior to the survey. The data here indicates that for the enterprises in this sample the reliance on shadow banking actually increases with size. Enterprises with 1 to 4 employees relied on shadow banks for 13.33% of their total finance, while the enterprise with over 100 employees used shadow banks for 70% of theirs. Given the sample size we should be careful with a broad generalization. This finding is nonetheless an indication that the use of shadow banking is not merely restricted to small and micro enterprises.

Large enterprises were also more likely to use bank finance. Enterprises with nine or fewer employees did not use bank finance at all over the 12-months prior to taking this survey. The one enterprise with 10 to 19 employees was even able secure 80% of its finance through formal banks. Enterprises with 20 to 99 employees, the largest group within this sample, relied on bank finance for 15% of their finance. While the enterprise with over 100 employees also used bank loans for 30% of their financing needs. This data suggests to confirm the findings of earlier studies and the literature review: the larger the company, the more likely it is to get access to bank loans. The smaller the company, the less likely it is to obtain any external finance. It also demonstrates that while small enterprises seem to be excluded from access to bank loans, enterprises with over 10 employees find it easier to get access to bank loans.

This data further highlights something, which was not discussed in previous studies. The shadow banking sector does not only provide finance for the lower end of the market, i.e. small enterprises. Even enterprises with a larger workforce rely on shadow banks. Despite having access to bank loans, they still make use of shadow banking. As our data indicates, bank loans are the most preferred source for finance, yet those with access to it still use shadow banks. The data further suggests that the level of turnover plays no significant role in determining if an enterprise uses shadow banks. Enterprises with a large turnover also used shadow banks to a similar extend as enterprises with a low turnover. For example, those with an annual turnover of over 1,000,000 RMB used shadow banks for 42% of their total finance, while enterprises with a turnover between 10,000 and 100,000 RMB used them for 43,33%. The use of shadow banks hence seems to be relatively stable.

There is a significant difference when it comes to the sources of the remaining finance. Those enterprises with a lower turnover were more likely to rely on internal finance, i.e. savings, retained earnings or owner's contributions. They only saw 16.67% of their finance stem from bank loans. Enterprises with a higher turnover tended relied less on internal finance and more on bank loans. Overall 26% of their finance came from banks, which is more than for enterprises with a lower turnover. A more detailed analysis further reveals that this group relies on a more diverse set of bank loans, namely from two SOCBs, JSCBs and other domestic banks. Enterprises with a turnover of 10,000 to 100,000 CNY received their bank loans from one SOCB. Enterprises with a turnover of under 10,000 CNY and between 100,000 to 999,999 CNY did not use bank finance at all. This is surprising but might be the result of the relatively small sample size. The findings are insightful nonetheless, because they suggest that even enterprises with access to the most preferred source of external finance, i.e. bank loans, still use shadow banks. Regardless of their individual level of access to bank loans, enterprises use shadow banks for some of their financing requirements. As this study discovered in the case of Nanjing, shadow banks had a competitive advantage in providing certain types of loans. For example, due to the faster loan approval procedure, they were able to provide loans at short notice. This could be a possible explanation as to why large enterprises with access to bank loans still use shadow banks.

While the fraction of finance stemming from the shadow banking sector is similar across the two groups, the composition is not. Table 2 provides us with a further breakdown of different forms of finance and their use across the relatively small sample. If we look at the use of shadow banks more closely, we find that enterprises with a turnover of 10,000 to 100,000 RMB were more likely to rely on informal finance. The majority of their shadow bank interactions came from interpersonal loans: 35% came from friends, making it the largest source of external finance. In fact, they received more funds from friends, than they were able to provide internally. They also did not use any formal shadow banks, e.g. microloans or P2P finance. Enterprises with an annual turnover over 1,000,000 RMB only relied on informal shadow banks for 22% of their financial needs. They used formal shadow banks, namely P2P financing platforms, for an additional 20% of their financing. Those with an an annual turnover of 100,000 to 999,999 CNY relied on both forms of shadow banking, formal and informal. They used interpersonal loans for 12.5% of their financing requirements, while using microloans and VC for 10% and 2.5% respectively. All groups of enterprises used shadow banks to supplement other forms of finance, but enterprises with a high turnover were more likely to use formal shadow banks. This is an interesting finding, for it appears that formal shadow banks cater more towards the upper ends of the market, while informal finance is still strong in the lower end.

The data suggests that with rising turnover and economic success, entrepreneurs change their financing behaviour. Small enterprises tend to rely solely on internal financing. As they grow, they start to use shadow banks as a source for external finance. Here they first seem to rely on informal finance. As they progress on their developmental trajectory, they soon switch from informal to formal shadow-banking. At one point, after they have grown big enough, they are then able to borrow money from banks.

The data further suggests that age of the enterprise is a factor in the use pattern of various sources of finance. One-year-old enterprises relied solely on internal finance. They did not use any forms of external finance, whether originating from the shadow banking sector or the formal financial sector. Enterprises, which had been in operation between two to five years, saw an increased reliance on external finance overall. They only financed 55.5% internally. Shadow banking was by far the largest source of their external finance, providing

34% of the funding for these enterprises. Enterprises between the age of six to ten years, relied on 80% external finance. They further relied heavily on bank loans for their financing needs, with 60% of all credit coming from formal banks. Their reliance on shadow banking dropped significantly, with only 20% of their finance stemming from this sector. This suggests two things. First of all, it suggests that as an enterprise becomes more mature and builds up a relationship with a formal bank, they can get better access to bank loans. Secondly, it seems to confirm an observation noted above. An enterprise will first rely on internal finance and as it grows, it will then seek external finance. At first, this external finance will come from informal institutions. As the enterprise matures, it obtains finance from formal shadow banks and ultimately from the formal banking sector. However, the two enterprises, which had been in operation between ten to fifteen years tended to rely on shadow banking more than any other group of enterprises. Shadow banks provided 85% of their financing in the 12 months prior to the survey. None of the finance came from internal sources and banks only provided 15%.

This data demonstrates that entrepreneurs in Beijing use a variety of different financial institutions. Bank loans are mostly accessible to more mature and larger enterprises. Based on the literature review and the analysis of the formal financial sectors, we expected to see more mature businesses to rely more on commercial banks and their loans. An enterprise with a higher turnover is most likely considered less of a default risk as a small or micro enterprise. With an older enterprise, the bank can collect information and, with time, overcome the asymmetry of information. We further expected to see smaller and younger enterprises to rely more on shadow banks. Our analysis of the survey data confirms this. However, the analysis also highlighted that the use of shadow banking is not restricted to small and young companies. The use of shadow banks is widespread amongst enterprises of virtually all sizes and ages.

Even those enterprises, which had access to bank loans still relied heavily on shadow banking. The literature reviewed in earlier chapters seems to suggest that this should not happen. More mature and larger enterprises with an access to bank loans, should use those as their primary source of external finance. Bank loans are the most desirable form of external finance and offer by far the cheapest and least invasive form of loan to an entrepreneur. Large enterprises should find it easy to get bank loans, because banks should be able to overcome the asymmetry of information over time. This should allow them to adequately cater for the financial needs of their borrowers. They should support a growing enterprise out of the desire to benefit from their customers' long-term corporate development.

Another interesting finding was that an increase in the use of bank loans does not coincide with a decrease in use of shadow bank loans but merely of the type of shadow bank used. When we examined the composition of shadow bank loans across the different groups of enterprises, an interesting finding was that larger enterprises tended to rely more on formal shadow banks than smaller enterprises. Smaller enterprises often relied on informal finance, e.g. interpersonal loans. Larger enterprises relied on various forms of shadow banking and made use use of a broader range of different shadow banks. This highlights an interesting finding of the survey. In general, the use of shadow banking is widespread throughout the sample. Enterprises of all sizes and ages used shadow banks and it is important to understand why enterprises still use shadow banks even if they have an access to bank loans? It is important to understand if this use of shadow banks is driven out necessity, i.e. the lack of other forms of finance, or driven by preference? Do entrepreneurs use shadow banks because they want to or because they have to?

Sources of Finance according to Preference

Average	Self-employed	1 - 4 Employees	5 - 9 Employees
1 Internal funds or retained earnings	1 Internal funds or retained earnings	1 Internal funds or retained earnings	1 Internal funds or retained earnings
2 Owners’ contribution or issued new equity shares	2 Owners’ contribution or issued new equity shares	Bank Loan	2 Bank Loan
3 Bank Loan	Bank Loan	2 Owners’ contribution or issued new equity shares	3 PE
4 VC	3 PE	3 P2P Finance	4 Owners’ contribution or issued new equity shares
5 P2P Finance	4 P2P Finance	4 VC	5 Microfinance
6 Loans from friends	5 VC	5 Microfinance	6 Loan from another company
7 Microfinance	6 Loans from friends	6 PE	7 VC
8 PE	7 Microfinance	7 Loans from friends	8 P2P Finance
9 Loan from Relatives	8 Loan from Relatives	8 Loan from another company	9 Loans from friends
10 Loan from another company	9 Loan from another company	9 Loan from Relatives	10 Loan from Relatives
	10 Loan from private lenders (but not family or friends)	10 Loan from private lenders (but not family or friends)	

10 - 19 Employees	20 - 99 Employees	100+ Employees
1 Internal funds or retained earnings	1 Internal funds or retained earnings	1 Internal funds or retained earnings
2 Bank Loan	2 Bank Loan	2 P2P Finance
3 PE	3 Owners’ contribution or issued new equity shares	3 Bank Loan
4 Owners’ contribution or issued new equity shares	4 PE	4 Loans from friends
5 Microfinance	5 Microfinance	5 Owners’ contribution or issued new equity shares
6 Loans from friends	6 VC	6 VC
7 P2P Finance	7 Loans from friends	Loan from another company
8 VC	8 P2P Finance	7 PE
9 Loan from another company	9 Loan from another company	8 Loan from private lenders (but not family or friends)
10 Trade Credit	10 Loan from Relatives	Trade Credit
		9 Microfinance
		10 Loan from Relatives

<10,000 RMB	10,000 - 100,000	100,000 - 999,999	>1,000,000
1 Internal funds or retained earnings	1 Internal funds or retained earnings	1 Internal funds or retained earnings	1 Internal funds or retained earnings
2 Bank Loan	2 Bank Loan	2 Bank Loan	2 Bank Loan
3 Owners’ contribution or issued new equity shares	3 Owners’ contribution or issued new equity shares	3 Owners’ contribution or issued new equity shares	3 Owners’ contribution or issued new equity shares
4 P2P Finance	4 PE	4 PE	4 P2P Finance
5 PE	Microfinance	5 Loans from friends	5 PE
6 VC	5 VC	6 Microfinance	Loans from friends
Microfinance	6 P2P Finance	7 VC	6 VC
7 Loans from friends	7 Loan from another company	8 P2P Finance	7 Loan from another company
8 Loan from Relatives	8 Loans from friends	9 Loan from another company	8 Microfinance
9 Loan from another company	9 Loan from Relatives	10 Loan from Relatives	9 Trade Credit
10 Loan from private lenders (but not family or friends)	10 Loan from private lenders (but not family or friends)		10 Loan from Relatives

Source: Online Survey among entrepreneurs in Beijing between October 2014 and August 2015

Table 9 - Sources of Finance ranked according to Preference

Sources of Finance ranked according to Accessibility

Average	Self-employed	1 - 4 Employees	5 - 9 Employees
1 Internal funds or retained earnings	1 Internal funds or retained earnings	1 Internal funds or retained earnings	1 Internal funds or retained earnings
2 Owners' contribution or issued new equity shares	2 Bank Loan	2 Loans from friends	2 Owners' contribution or issued new equity shares
3 Loans from friends	3 Owners' contribution or issued new equity shares	3 Owners' contribution or issued new equity shares	3 Bank Loan
4 P2P Finance	P2P Finance	4 P2P Finance	4 P2P Finance
5 Bank Loan	4 Microfinance	VC	5 Loan from Relatives
6 Loan from Relatives	5 Loans from friends	5 Loan from Relatives	6 VC
7 Microfinance	6 VC	6 Bank Loan	7 Loans from friends
8 VC	7 Loan from Relatives	7 Microfinance	8 Microfinance
9 PE	8 PE	Loan from another company	9 PE
10 Loan from private lenders (but not family or friends)	9 Loan from private lenders (but not family or friends)	8 Loan from private lenders (but not family or friends)	10 Loan from private lenders (but not family or friends)
	10 Loan from another company	9 PE	
	Trade Credit	10 Trade Credit	

10 - 19 Employees	20 - 99 Employees	100+ Employees
1 Internal funds or retained earnings	1 Internal funds or retained earnings	1 Internal funds or retained earnings
2 Owners' contribution or issued new equity shares	2 Loans from friends	2 P2P Finance
3 Loans from friends	3 Owners' contribution or issued new equity shares	3 Owners' contribution or issued new equity shares
4 Loan from private lenders (but not family or friends)	4 Bank Loan	4 VC
5 P2P Finance	5 P2P Finance	PE
6 Microfinance	6 Loan from Relatives	5 Loans from friends
7 VC	7 Microfinance	Bank Loan
8 PE	8 VC	Loan from Relatives
9 Bank Loan	9 PE	Microfinance
10 Loan from Relatives	10 Loan from another company	Loan from private lenders (but not family or friends)
		6 Loan from another company
		7 Trade Credit
		8 Other

<10,000 RMB	10,000 - 100,000	100,000 - 999,999	>1,000,000
1 Internal funds or retained earnings	1 Internal funds or retained earnings	1 Internal funds or retained earnings	1 Internal funds or retained earnings
2 Bank Loan	2 Bank Loan	2 Owners' contribution or issued new equity shares	2 Owners' contribution or issued new equity shares
3 Owners' contribution or issued new equity shares	3 P2P Finance	3 Loans from friends	3 P2P Finance
4 P2P Finance	4 Loans from friends	4 Bank Loan	4 Loans from friends
VC	5 Microfinance	P2P Finance	5 Bank Loan
Loan from Relatives	6 Owners' contribution or issued new equity shares	5 VC	6 Microfinance
5 Loans from friends	Loan from Relatives	6 Loan from Relatives	7 Loan from Relatives
6 Loan from private lenders (but not family or friends)	7 VC	7 Microfinance	8 VC
7 PE	8 Loan from private lenders (but not family or friends)	8 PE	9 PE
8 Microfinance	9 PE	9 Loan from another company	10 Loan from private lenders (but not family or friends)
9 Loan from another company	10 Loan from another company	10 Loan from private lenders (but not family or friends)	
10 Trade Credit			

Source: Online Survey among entrepreneurs in Beijing between October 2014 and August 2015

Table 10 - Sources of Finance ranked according to Accessibility

6.1.2. Preference vs. accessibility – the use of financial institutions in Beijing

The previous section of this chapter established how widespread the use of shadow banking is throughout the sample. All survey participants have used one form or another. The service of the shadow banking sector was by no means a full substitute for formal bank loans. Even entrepreneurs with a line of credit from a commercial bank, who in theory have access to the most cost-efficient form of debt-finance, have relied on the shadow banking sector. This raises an important question: why do they continue to rely on shadow banks? Do enterprises rely on shadow banks still because they have to or do entrepreneurs use them, because they want to? Do shadow banks provide a service, which the customer finds desirable? Or could it just be that it is the most accessible form of finance?

In order to gain a better understanding into the driving factors behind the use of shadow banking, the survey asked participants to rank a range of sources of finance in terms of their accessibility and in terms of their preference. Participants were provided with a list of various sources of finance, which included formal and informal sources. For example, it included both bank loans, formal shadow banks (e.g. P2P finance), and informal finance (e.g. various forms of interpersonal loans). Options such as initial public offerings or corporate bonds were not included in the list as options, because of the general issues associated with China's financial markets outlined in Chapter Three. For survey participants, taking their company public on the stock market or issuing corporate bonds on the capital markets were not a feasible method of acquiring new capital.

All Participants were then asked to rank these sources of finance according to two criteria. The first criterion is preference. Entrepreneurs had to tell us, which of these sources they liked to use and provide a hierarchy of preference. The second criterion is accessibility. Participants were asked to rank the same institutions according to their perceived accessibility.

This allowed us to establish, if a source of finance was used because it is available or because they preferred using it. Table 3 and Table 4 provide the hierarchy across the sample. The table further provides an overview of the averages according to the size of the company.

Participants were asked to rank a range of sources of finance according to their personal preference. Across all 27 participants, the 10 most preferred sources of finance were *internal funds and retained earnings, owner's contribution and equity issuance,* followed by *bank loans, venture capital* (VC), *P2P finance*, *loans from friends, microfinance, private equity (PE), loans from relatives and loans from another company*.

Ten most preferred sources of finance	
	Average
1	Internal funds or retained earnings
2	Owners' contribution or issued new equity shares
3	Bank Loan
4	VC
5	P2P Finance
6	Loans from friends
7	Microfinance
8	PE
9	Loan from Relatives
10	Loan from another company

Source: Online Survey among entrepreneurs in Beijing between October 2014 and August 2015

Table 11 - Ten Most Preferred Sources Of Finance

Internal funds and owners' contributions were expected to be the two most preferential forms of finance. Entrepreneurs are more likely to prefer the least invasive forms of capital, i.e. their own. Capital from an outside lender or investors is at varying degrees more invasive for the borrower. Invasive here means that the entrepreneur is no longer as free to make decisions in his company as he was before. An external lender or investor is likely to seek influence in the decision making after they have made an investment or given a loan. This allows the external party to ensure that the debt is serviced in the case of debt finance. In the case of an equity investment, it ensures that the return on his investment is maximised. For example, in a publicly traded company, the shareholder's meeting will decide over the future of that company and executives will execute these decisions. External finance always means some form of loss of control or at least limits on the entrepreneurial freedom. Entrepreneurs should hence prefer internal forms of finance, such as internal funds, retained earnings, owner's contribution or the issuance of new equity for existing owners. We find that across the entire sample and in each sub-group, internal funds rank as the most accessible and the most preferential forms of finance. This confirms a phenomenon widely mentioned in the literature. The entrepreneurs in this sample also prefer the least invasive capital.

The third most preferential source of finance are bank loans. Bank loans expected to be the most preferential source of external finance. By their nature they are relatively cost-effective forms of debt-finance and minimally invasive. The commercial bank is very unlikely to seek involvement in the actual operation of the debtor's enterprises. They will monitor the debtor, his interest payments, and the repayment of the principal loan. They are unlikely to seek control beyond these external checks. This makes bank loans the least invasive form of external finance. Additionally, interest rates on bank loans are lower than in any other form of debt finance available to entrepreneurs[167]. Chapter One further discussed in much greater detail the advantages of bank loans in much greater detail.

Venture capital (VC) is seen as the fourth most preferential source of finance. The high position of venture capital is surprising nonetheless. By its very nature, venture capital is highly invasive. VC investments are equity investments, so entrepreneurs will give up part of their equity in exchange for an investment. Most venture capitalist will want to exercise a degree of involvement in the operation of an enterprise. They will seek to exercise some form of control over the company that they have invested in. So how can we explain that entrepreneurs find this the second most desirable form of external finance? The advantage of VC and other forms of equity investment are the costs associated with it. Venture capital does

[167] E.g. Interview NJ-14-12-008

not incur any interest, for it is an equity investment. It is therefore fundamentally different than an interest-bearing loan. The venture capitalist is rewarded or remunerated for their investment, when the company goes public, it is sold to a competitor/other investor, or he sells his equity through another channel. This might explain the relative popularity of VC. It is an invasive but low-cost form of finance.

Peer-to-peer (P2P) lending ranks as the sixth most desirable form of finance. Despite the high interest rates charged for P2P loans and the resulting high borrowing costs, the sample group found on average that it's the third most desirable external source for financial capital. The findings in Beijing are in stark contrast to this study's earlier findings in Nanjing. In Nanjing P2P finance was mostly seen as a source of funding for companies, who '*must need be badly in need of* money'[168]. P2P lending platforms and loans were largely branded as undesirable by most of the interviewees. The majority of borrowers and finance experts often denounced them entirely because of the very high funding costs[169]. So what might cause entrepreneurs in Beijing to feel differently? Their relative popularity might be a product of their clear competitive advantage over many other forms of external finance: the simplicity and speed in which P2P financing platforms make decisions and extend loans. At the time of the fieldwork, P2P platforms were still largely unregulated and loans were approved in hours or days the most. There exists a much higher degree of flexibility in regards to the maturity of P2P loans and the collateral they could use. Without a doubt, these institutions were much more flexible than commercial banks[170]. Entrepreneurs appear to find this degree of simplicity and flexibility appealing. For them the higher funding costs might just be the price they are willing to pay for this high degree of flexibility.

[168] ibid.
[169] Interview NJ-15-03-003
[170] Interview BJ-14-11-002

Loans from friends are the sixth most preferred source of finance. This relatively low rank, as the fourth most preferred source of external finance seems to contradict in part the findings of our analysis for Nanjing and also much of the existing literature on the matter. Much of the literature describes that interpersonal loans are often extended at very favourable rates and conditions. The fieldwork in Nanjing even suggested that these loans are often entirely interest-free. At the very least, the interest rate is below that of P2P loans. They were also said to offer a much higher degree of flexibility to negotiate and re-negotiate the terms of the loan. All this has led previous studies and the analysis of my interview data to conclude that interpersonal loans are highly attractive to the borrower. Entrepreneurs are said to frequently lend and borrow money from/to friends. What is interesting is that despite very favourable conditions survey participants in Beijing on average would prefer to seek finance through some other shadow banks. Even loans with a high interest rate, e.g. loans from a P2P lender, or highly invasive forms of finance, like venture capital, are more attractive than borrowing money from friends. The case of Beijing suggests that entrepreneurs prefer loans from formal shadow banks, even at a higher cost, over interpersonal loans.

Survey participants ranked microfinance institutions as the seventh most preferential form of finance. The data for Beijing suggests, that entrepreneurs will only seek a microloan, after they have exhausted, bank loans, P2P finance and loans from friends. This too suggests that there is a large regional variance between Tier-I and Tier-II cities. An incubator in Nanjing highlighted that for a POE, microfinance was indeed the most preferential form of external finance outside the formal banking sector[171]. According to him, if a POE cannot get access to a bank loan, their first point of call would be a microloan company. A possible explanation for this might be a more advanced local financial system in Beijing. Bank loans and other forms of

[171] Interview NJ-15-03-002

shadow banking may already provide enough capital, so that entrepreneurs do not have to rely on microloans. After all, the interest rate for microloans is higher than that of a bank loan or loan from a friends. At the same time, it does not provide the borrower with the same level of convenience as a loan with higher borrowing costs, e.g. P2P finance. Lastly, microloans in Beijing might also not be as widely available and thus entrepreneurs do not see them as an appealing source of finance.

The eighth most preferred source of finance is private equity (PE). PE, as a form of equity finance, is also a pervasive form of finance. Accepting an equity investment from a PE firm is therefore similar to the investment from a VC firm. The lower rank of PE is therefore difficult to understand. The size of the PE sector and the access to these investments might explain the lower attractiveness for an entrepreneur. While VC is readily available and VC firms are actively looking for investments, private equity firms in Beijing are not as prominently featured.

The interview data revealed loans from relatives as the ninth most preferred source of finance. The relatively is surprising. Much like loans from friends, this form of interpersonal loan often comes at favourable costs and conditions. We should therefore expect it to be on of the most preferred forms of external finance. They are often considered as relatively cost-effective, because lending rates tend to be favourable. However, it appears that entrepreneurs much rather borrow money from outsiders than from their own kin. A possible explanation might be closely connected to the concept, which in the case of Nanjing made interpersonal loans in general so attractive and convenient: *Guanxi*. Family relationship are important in network-based societies. Should a borrower find themselves unable to service a debt or pay a loan to a relative, his social network might hold him accountable or treat him like an outcast. If a borrower borrows from outside of his family network, he does not run the risk of a possible deterioration of a relationship over a loan and ultimately looses access to the important family network. Another possible explanation might be the ability to raise enough money through relatives. Loans from banks or other formal shadow banks provide an access to large amounts of financial capital. Loans from relatives may simply not provide enough capital for the entrepreneurs in this sample.

In the tenth place, we find loans from another company. These other companies include a range of NBFIs, credit guarantee companies and other lending companies. Due to the often exorbitantly high interest rates and premiums charged by these lenders, it is understandable, that entrepreneurs rank this in the tenth place overall.

Ten most accessible sources of finance	
	Average
1	Internal funds or retained earnings
2	Owners' contribution or issued new equity shares
3	Loans from friends
4	P2P Finance
5	Bank Loan
6	Loan from Relatives
7	Microfinance
8	VC
9	PE
10	Loan from private lenders (but not family or friends)

Source: Online Survey among entrepreneurs in Beijing between October 2014 and August 2015

Table 12 - Ten Most Accessible Source Of Finance

Participants were also asked to rank the same sources of finance according to their perceived accessibility. Table six shows the ten most accessible sources of finance. They were *internal funds and retained earnings, owner's contribution and equity issuance,* followed by *loans from friends, P2P finance, bank loans, loans from relatives, microfinance, VC, PE and loans from private lenders (not friends or family).* Again, the two most accessible internal sources of finance. This was to be expected as one's own funds and capital from other owners should always be readily available.

Loans from friends were considered the third most accessible form of finance and the most accessible form of external finance. This means that for our participants, it is easier to get a loan from their friends than it is to get a loan from any other external source of finance. This is particularly interesting, because entrepreneurs found this only the sixth most preferred source of finance. A possible explanation is that the somewhat romanticised concept of '*Guanxi as collateral*'[172] just disguises the fact that entrepreneurs borrow money from friends, because it is easy. The data here suggests that the widespread use of private lending amongst friends is driven out of necessity rather than preference. Entrepreneurs rely on interpersonal loans from their friends not because they want to or because they offer favourable conditions. They use them as a source of finance only, because it is the most accessible form of external finance available to them.

The fourth most accessible form of finance was P2P finance. This is also not a surprise. Due to the poor regulatory background at the time[173], these platforms existed throughout the country. Advertisements for loans over the internet promised easy and quick loans. Poor regulatory oversight meant that loans were freely extended to borrowers. This often also meant relatively poor corporate oversight over lending decisions and approval procedures. In a city like Beijing, it would take between 1-3 days between the time that a loan application was submitted and funds were dispensed[174]. Funds were released so quick, that due diligence was a difficult task. A financial executive of a large and now defunct P2P financing platform in

[172] Interview NJ-14-12-003, NJ-14-12-006, NJ-15-03-001, NJ-15-05-001

[173] Previous sections of this study have pointed out the poor regulatory framework of the P2P lending market. The subsequent establishment of new rules and their enforcement resulted in stricter enforcement for poor quality platforms. The crackdown on those lenders continued until the time of writing and saw executives of P2P platforms being prosecuted for criminal misconduct. I tried to arrange a follow-up interview with Interviewee BJ-14-11-002 but I was not successful.

[174] Interview BJ-14-11-002

Beijing said, that she believed that the NPL rate of her platform was beyond the legal limit. Following the extensive growth of her platform and its loan portfolio, she said that the NPL rate was '*officially [..] 5%*', be she was '*sure it is more than 5%*'[175]. If loans are extended rapidly and to all kinds of borrowers, it casts doubt over the entire procedure. How can the platform ensure that the debtor can service the debt and repay the loan? For the entrepreneurs this makes it an easily accessible form of external finance, because there is no *red tape* to cut. This easy access, quick loan approval and general flexibility may have also contributed to the attractiveness of this form of finance, while at the same time contributing to the systemic instability emanating from it.

Bank loans are the fifth most accessible form of finance and the third most accessible form of external finance. Despite bank loans being the most desirable form of external finance, entrepreneurs polled for this study did not find access to them as easily accessible. It appears that in general the issues within the wider Chinese banking sector, e.g. multiple principal conflict and an SOE lending bias, also restrict the access of POEs to bank loans. In addition to the issues discussed in the previous chapters, a local finance expert in Beijing highlighted, that it is indeed rational and economical for banks to focus on large SOEs[176].

> "*A 1bn RMB loan at 4% is a lot easier to make than a bunch of 1000 x 1m RMB loans at 8%, just from a transaction cost perspective.*" Finance Expert (BJ-14-11-001)

As this survey's population are small and medium-sized enterprises, they are likely to find access to bank loans difficult. If they were large POEs, with higher financing needs, they might find it easier to get a bank loan. This implies that there are rational non-political considerations

[175] ibid.
[176] Interview BJ-14-11-001

for lending predominantly to large enterprises and SOEs. It is not simply the role of the omnipresent and omnipotent state, which affects the corporate governance of commercial banks and pushes them towards lending to SOEs. Even outside of China, large enterprises will find it easier to obtain a bank loan. The picture provided by the analysis of this study's survey data does not necessarily support this. Self-employed entrepreneurs found bank loans the most accessible form of external finance, while enterprises with 100+ employees found it the fifth most accessible. For the latter, it was as accessible as loans from friends, relatives or microfinance.

It is important to emphasise that the dataset for this study is not representative. The survey further did not collect any data on the economic situation of the entrepreneur himself. There is a chance that entrepreneurs, who were able to pledge personal assets as collateral for bank loans, found access to bank loans easier, than those entrepreneurs, who could not. It is also important to note that while they ranked them highly, self-employed entrepreneurs did not indicate using them in the 12 months prior to taking the survey.

Loans from relatives rank as the sixth most accessible form of finance and the fourth most accessible form of external finance. After loans from friends, loans from relatives are the second most accessible form of interpersonal finance. This is an interesting insight, because entrepreneurs found this source of finance largely unattractive, ranking it the ninth most preferential form of finance. Interpersonal loans, whether from family or friends seem to be used out of necessity. Entrepreneurs would prefer to use formal financial institutions and some other forms of shadow banking. Nonetheless, these traditional forms of interpersonal finance are still easily accessible, even if they are not desirable.

Microfinance follows in the seventh place. While interviews have suggested, that microfinance is widely accessible[177], the research for Beijing suggests a regional variance in its accessibility. In Nanjing, interviewees suggested that local and provincial authorities encouraged microfinance to allow entrepreneurs access to finance, because of a lack of access to bank loans[178]. In Beijing on the other hand this data suggests, that entrepreneurs on average find it easier to get a bank loan than microloan. This is indicative for a regionally more mature financial system, where banks do provide some of the functions, which they are ought to provide.

VC and PE follow in eighth and ninth place respectively. This in itself is not surprising, because both the PE and VC sectors in China are still relatively small. This makes it more difficult to as widely available as bank loans or other forms of finance.

Loans from private lenders rank tenth in the list in terms of accessibility. They are also the only source of finance in this list, which was not included in the list of the the most preferred sources. This is an interesting finding, because it highlights the issue of unregulated informal interpersonal finance. Interpersonal loans based on Guanxi are accessible but still somewhat desirable, with the exception of loans from relatives. Interpersonal loans from people, with whom the borrower has no interpersonal relationship however seem to be completely undesirable, but available. Said loans come at high costs. First of all, their high interest rates make them undesirable. Whereas P2P financing platforms charge high rates, bordering on or exceeding the threshold for usury, interpersonal loans often fully surpass them. Furthermore, there are non-material costs involved in this type of lending: negative

177 Interview NJ-14-12-001,
178 Interview NJ-14-12-004

social externalities caused by the extrajudicial methods, in which their claims are often enforced (*"bad things can happen to you"*[179]).

Through this study's analysis of survey data, we were able to establish which sources of finance entrepreneurs would like to use vis-à-vis to which sources they find accessible. This provides us with a much better and nuanced understanding of the local financial landscape of Beijing and the role of shadow banking institutions. This descriptive analysis has resulted in some important findings. First of all, it appears that entrepreneurs do not like to rely on loans from friends, relatives or private lenders (i.e. *interpersonal loans*). Our survey data suggests that entrepreneurs use them, because they are accessible and not because they are desirable. This contradicts the idealised and romanticised picture of interpersonal loans, drawn in the literature review and the interviews in Nanjing. Interpersonal loans are used to supplement the shortcomings of the other financial sectors and not because they are attractive.

The same cannot be said for loans from formal shadow banks. Here our analysis suggests that deficit spending units use them, because they want to and not necessarily because they have to. The case of P2P finance provides a very good example. Our data suggests that despite their cost, loans from P2P financing platforms are a sought after source of finance for entrepreneurs. In Chapters Four and Five we discussed the high interest rates charged by some of these platforms. It is therefore somewhat puzzling, that entrepreneurs still prefer to use them over other and cheaper sources of finance. The reasons might not have to do with the cost of the loan but rather the service they provide. While they are expensive to use for the borrower, they possess a competitive advantage over the formal financial sectors with the service. They provide quick and easy access to finance. In this, they supplement the functions of the formal financial sector. The more detailed breakdown of

[179] Interview NJ-15-03-001

sources of finance in Table 7 and 8 further highlights this. Even entrepreneurs with an access to bank loans used P2P financing platforms.

The data provides us with a more nuance understanding of the institutional landscape of the shadow banking sector in Beijing. It demonstrated that Beijing too, possesses a wide variety of formal and informal shadow banks. While the institutional landscape is somewhat similar to the landscape in Nanjing, there is a significant difference: borrowers in Beijing prefer to use formal financial institutions in general. This includes commercial banks and formal shadow banks. They would much rather rely solely on those forms of finance and not use interpersonal loans at all. The fact that they do and often have to use interpersonal loans, highlights that despite Beijing's high degree of economic development, entrepreneurs still have to seek finance from outside of the formal financial sectors.

On average across the sample, entrepreneurs would like to use bank loans as their main source of external finance. Across all sub-groups, bank finance ranks as the second or third most preferred source of finance and is always the most preferred source of external finance. Apart from self-employed entrepreneurs, none of the participants ranked it as the most accessible form of external finance. What is surprising is that despite ranking them as the most accessible form of formal finance, none of the self-employed entrepreneurs had relied on ban loans in the 12 months prior. This casts a shadow of doubt over their responses concerning their own access to bank loans. The data nonetheless suggests, that entrepreneurs want to but cannot use bank loans as their preferred source of finance.

The analysis highlights, that in the absence of widespread access to bank loans, another financial sector has provided a function to those in need of capital. It demonstrates that the shadow banking sector is providing a supplementary function for enterprises in Beijing. Having understood the institutional make up of the shadow banking sector in Beijing, we ought to focus our attention on the functional analysis of the sector. The following section will therefore aim to establish, if the functions provided by the local financial system in Beijing, i.e. the banking sector and the shadow banking sector, are seen as adequate enough to allow for continued corporate development. Due to the structure of the sample, which relies on micro, small- and medium-sized enterprises, financial markets are not taken into consideration when further examining the local financial system.

6.2. Functional analysis: how has the shadow banking sector affected access to finance for enterprises in Beijing?

Due to population of the survey and the scope of the questionnaire, the functional analysis of the shadow banking sector in Beijing is limited to one function only: access to finance. As the survey was designed for entrepreneurs, it did not focus on other functions, e.g. alternative to bank deposits or services to the other formal financial sectors.

How has the access to finance affected the different businesses in our dataset? Do entrepreneurs, who had access to bank loans feel, that access to finance had a more positive impact on their business than those entrepreneurs, who had to rely on shadow banks? As the institutional analysis established, the use of shadow banking is widespread amongst Beijing's enterprises. If all entrepreneurs in this sample have used shadow banking to various degrees, did it have an impact on their overall access to finance? Did entrepreneurs, who used shadow banking more than others, feel that their access to finance was any better than that of others?

The survey asked participants to rank on a six-point scale from good to bad, how the access to finance had affected their business. Responses of one or two points were counted as negative, while responses of three and four points were counted as neutral and responses of five and six points were counted as positive. Out of the 27 participants in the survey, 25 provided complete responses for this question. Table 7 provides an overview of the findings.

How Has Access to Finance Affected Your Business?

Employees	**Negative**	**Neutral**	**Positive**
Self-employed	0,00%	50,00%	50,00%
1-4 Employees	50,00%	50,00%	0,00%
5 - 9 Employees	0,00%	33,33%	66,67%
10 - 19 Employees	0,00%	0,00%	100,00%
20 - 99 Employees	10,00%	50,00%	40,00%
100+ Employees	0,00%	0,00%	100,00%
Turnover	**Negative**	**Neutral**	**Positive**
<10,000 RMB	0,00%	50,00%	50,00%
10,000 - 100,000 RMB	50,00%	50,00%	0,00%
100,000 - 999,999 RMB	0,00%	33,33%	66,67%
>1,000,000 RMB	10,00%	50,00%	40,00%
Years in Operation	**Negative**	**Neutral**	**Positive**
≤ 1 year	12,50%	0,00%	87,50%
2 - 5 years	7,69%	61,54%	30,77%
6 - 10 years	0,00%	50,00%	50,00%
10 - 15 years	0,00%	66,67%	33,33%

Source: Online Survey among entrepreneurs in Beijing between October 2014 and August 2015

Table 13 - How Has Access to Finance Affected Your Business?

On average, 52% of enterprises felt that their access to finance had positively affected their business, while 8% felt that it had a negative impact on their business' development. This puts into perspective the use of internal finance, shadow banking and banking across the sample. As Table 7 showed, in the 12-months period before the survey, entrepreneurs used bank loans for only 17.19% of their total finance, while relying on shadow banking for 36.67% and internal finance for 32.98%. Despite relying on internal finance and shadow banking for over two thirds of their total financing needs, access to finance in general had positively affected the participant's business. This would suggest, that in the absence of a well-developed banking sector, the shadow banking sector has taken over part of its function and provide sufficient amounts of capital to a range of enterprises. It then begets the question, if this observation is valid for every sub-group in the sample?

On average, the two self-employed entrepreneurs indicated that access to finance had no effect or a positive effect on their business. This is particularly interesting, because this group relied solely on shadow banking and received no line of credit from the formal financial sectors. Enterprises with one to four employees on the other hand felt that access to finance had no or a negative effect on their business. This group also did not receive any finance from the formal financial sectors, but relied largely on internal finance. Only 13.33% of their total financing came from external sources, all of which were shadow banks. Enterprises with five to nine employees predominantly felt that access to finance had positively affected their business. This is interesting, because they did not rely on any form of external finance, whether from shadow banks or from the formal financial sectors. The enterprise with ten to nineteen employees also indicated access to finance had a positive effect overall. In their case 80% of their finance stemming from bank loans and 20% from the shadow banking sector. The largest group, enterprises with 20-99 employees felt that access to finance had either no or a positive impact on their business, while 10% felt that it had a negative impact overall. It is interesting to see, that this group relied on internal finance for 55% of their financing requirements, and on banks for 30% and shadow banks for 15%. Lastly, the enterprise with the second largest reliance on both shadow banks and banks, 70% and 30% respectively, felt that access to finance had a positive impact on their business.

Enterprises with an annual turnover under 10,000 CNY also felt that access to finance had positively affected their business. In contrast to any other group in the sample, they only relied on internal finance. Enterprises with an annual turnover of 10,000 to 100,000 CNY on the other hand indicated, that access to finance had largely negatively affected their business. This group relied on shadow banking for 43.33% of their total finance requirements and on the banking sector for 16.67% respectively. The majority of enterprises with turnover between

100,001 and 999,999 CNY felt that access to finance had positively affected their business, despite solely relying on shadow banking for their external finance. This means that despite the relatively higher funding costs for shadow bank loans, they had been able to run successful enterprises. The majority of enterprises with a turnover of over 1,000,000 CNY felt that access to finance had no impact on their business. An additional 10% felt it had negatively affected it and 40% had felt a positive impact. These entrepreneurs had relied on shadow banks for 42% of their financing and on banks for 26%

The data suggests the use of shadow banking or banking does not coincide with a more positive or negative impact of access to finance. Enterprises which relied more on shadow banks than formal banks did not indicate that their access to finance was better than that of enterprises which relied less on shadow banking. What the data does suggest is that a more positive impact of access to finance for the entrepreneur does coincide with a certain type of shadow bank. Entrepreneurs, who relied less on informal/interpersonal loans, generally felt that access to finance had a more positive impact on their business. Enterprises with a negative or neutral perception of their access to finance generally received fewer loans from formal shadow banks and relied more on interpersonal finance. Entrepreneurs with a more favourable view of their access to finance, relied on a mix of loans from formal shadow banks as well as interpersonal loans. This is an insightful finding, because it disputes the often idealised picture of interpersonal loans and the role of personal connections within China's network-based society. It is off course difficult to establish causality from this. Due to the sample size, this can only serve as an indication.

6.3 Concluding Remarks

Beijing serves as an interesting case of what role the shadow banking sector plays within the greater fabric of the Chinese financial system. The city is more developed than other parts of the country. It is home to a range of different enterprises, in terms of their size and industry. When I examined the use of different sources of finance over the 12-months period prior to taking the survey, the most interesting finding was that virtually all enterprises had used some form of shadow banking. Enterprises with access to bank loans still relied on shadow banks and in some cases rather heavily. On average in the sample, enterprises tended to rely more on shadow banking than on formal banks. The use of shadow banking was not confined to the small- or micro-sized enterprises, which simply had no other method of financing their business activities. What was particularly interesting was that the level of usage remained almost stable across different sizes of enterprises. As their business grew, entrepreneurs did not substitute shadow bank loans for bank loans. They did not seek to reduce their reliance on shadow banks or external capital for that matter. They were much more likely to substitute their own internal finance for bank loans, with a relatively stable share of loans from the shadow banking sector.

What made this analysis insightful is that due to the anonymity of an online survey, it appears that entrepreneurs were more open about the type of finance they preferred. Whereas earlier studies had often drawn an idealised picture of interpersonal loans and the underlying cultural norms and relations, our data did not support this.

The case of Beijing was interesting for a variety of reasons. First of all, due to the type of data, the analysis had to be structured differently than in the case of Nanjing. On the other hand, due to the anonymity of an online survey, it appears that entrepreneurs were more open about the type of finance they prefer. A key finding of this analysis was that entrepreneurs tend to rely on interpersonal loans because they have to and not because they want to. This contradicts findings about the role of Guanxi and its attractiveness in interpersonal finance. Entrepreneurs prefer loans from formal financial institutions, whether banks or shadow banks.

Overall the data in this chapter has confirmed that the supplemented local financial system, which exists in Beijing, is providing the functions needed by the city' vibrant business community. 52% of the enterprises in this survey felt that access to finance affecting their business positively. 40% of the sample did not feel that this had any impact on their business and only 8% felt that it had affected their business negatively.

The overall size of this survey's population means, that these findings can be seen only as indications. The data furthermore did not allow us to analyse the remaining supplementary functions, which the shadow banking sector provides for the financial system, namely an alternative to bank deposits, services to the formal banking sector or services to the local government.

Conclusion

The evidence presented and analysed in this study points towards one key finding: shadow banking is important. From the low level interpersonal loans to the securitized assets, the shadow banking sector provides a valuable function to the entire financial system. Its role is deeply enshrined within credit intermediation in China. While research on this sector has become increasingly more popular over the last few years, no study has so far sought to understand shadow banking systemically through the functions it provides to the entire financial system. Existing research has focused on limited groups of institutions to further our understanding of shadow banking. It was quick to argue that, e.g. informal finance, will wither away in time as a financial system grows more mature. This makes the case of China even more interesting. Her economy is growing, but the shadow banking sector has not withered away.

This study has sought to first understand the shadow banking from a functional approach. The aim was to account for the sector's role in the wider financial system. In order to understand the functions, we first had to understand the wider fabric of the Chinese financial system. If Chinese banks are now the biggest banks in the world, why are they not functioning like the theory suggests? What stops them from effective credit intermediation and why are the financial markets not a valid alternative? This analysis enabled us to understand why China needs a shadow banking sector today. Understanding the shortcomings of the formal financial sectors allows us to analyse the functions provided by the shadow banking sector. The first part of this conclusion will focus on these two aspects: the need for and the function of the shadow banking sector.

For the lack of a better alternative, financial systems design theory formed the backbone of our initial analysis of China's financial system. When we applied financial systems design theory to the Chinese financial system, we discovered an anomaly. The theory did not provide the adequate tools to analyse, what lay in front of us. By all indicators, China has bank-based financial system. China is home to some of the largest commercial banks in the world. Following the theoretical premises of financial systems design theory this means banks should provide enough capital to fund economic growth and the development of privately owned enterprises. This is the idea behind a bank-based financial system. The theory tells us that commercial banks are able to collect information on a borrower over time and overcome the asymmetry of information between creditor and debtor. This role as an information gatherer also allows banks to act as an efficient delegated monitor. This role and the function of banks greatly benefits POEs in general, and SMEs in particular.

Previous studies, which we reviewed in Chapter Three, found that in China, strong banks did not benefit POEs. They found that banks in China are ill-equipped to respond to the needs of POEs. They conclude that this leads to a skewed capital allocation in favour of large SOEs. The state, who owns the largest commercial banks likes to use them to ensure that SOEs have access to cheap lines of credit. The lending policies of SOCBs and other large JSCBs are said to be heavily biased in favour of SOES. It is because of this lending bias that commercial banks simply do not lend to POEs. The omnipotent and omnipresent state forces the banking sector to lend money to their own enterprises. The average shareholder or depositor is powerless and has to accept this as a reality. This is a view widely held within academia and the financial industry. The problem is just one thing: it is not true. This study confirms that POEs do not have an easy access to formal bank loans. Entrepreneurs are forced to seek financial capital outside of the formal financial sectors. The reason for this is only partly the SOE lending bias or the omnipotent state.

First of all, this view implies that all state actors in China are working in perfect harmony and pursue state-led development as a common goal. While this might be true for policy banks, whose sole purpose it is to fund the implementation of government policy, it can hardly be true for all banks with partial state-ownership. As I demonstrated in my analysis of the Chinese banking sector, virtually all large commercial banks in China have some degree of state-ownership but also varying degrees of private ownership. Commercial banks need to be profitable and work with moderate to high efficiency. They cannot survive economically, if they only lend money to SOEs. Especially if these SOEs tend to be less productive than POEs. Furthermore, if commercial banks actively excluded POEs from all bank loans, it would imply that all POE finance takes place outside of the formal banking sector. If commercial banks with partial state ownership do not lend money to POEs, then there are hardly enough banks left to fund private sector development in China. This would be an easy answer to the question, why this country desperately needed a shadow banking sector. POEs are denied access to formal bank loans and in their absence, they have to seek finance somewhere else.

This study has demonstrated that this is an oversimplified argument for why Chinese enterprises rely on credit intermediation outside of the formal banking sector. All entrepreneurs interviewed for this study have described issues surrounding their access to bank loans. That much is true. Banks are ill-equipped to handle POE lending and do not particularly like lending to SMEs. Chinese commercial banks have not been able to use their position at the core of credit intermediation to overcome the asymmetry of information and become delegated monitors. The reason for this is not that they are pre-occupied with lending to SOEs and have no resources left to lend to POEs. It is rather that their complex internal procedures are at the heart of the problem. These procedures result in long and tedious timeframes for loan approvals and mean that an entrepreneur cannot rely on commercial banks for a quick line of credit. From the perspective of a commercial bank, the procedures encourage lending to large enterprises, which often are SOEs. The procedure for a loan application is the same for a 10,000 CNY loan and a 1,000,000 CNY loan. From a rational perspective it therefore makes sense to look for large borrowers and neglect smaller ones. If the costs for both loans are identical, extending the larger loan is more cost-efficient.

The internal procedures of commercial banks also do not encourage entrepreneurs to be open with their banks. The tongue-in-cheek saying that a bank will lend you an umbrella when the sun is shining, but if it starts raining, it will take it away means precisely that. Even if an entrepreneur has been able to obtain a bank loan, he will not contact his bank if he encounters short-term financial difficulties. If he did, the bank would probably take away the umbrella (i.e. recall the principal loan). This is common procedure across most large commercial banks, regardless of whether they are SOCBs, JSCBs, or CCBs. For the entrepreneur, this means that he can use his house bank for some of his financing needs but not all. These findings are new, because they reveal that entrepreneurs in China have to rely on the both, the formal financial sector and the shadow banking sector. Their use is not mutually exclusive. Entrepreneurs do not just use one or the other, but tend to use both.

For the bank, this presents a challenge. Their own procedures mean that they can never be certain how financially healthy their borrower actually is. For the financial system it means, that due to the way commercial banks operate, there is a demand from deficit-spending units outside of the formal financial system (*where enterprise leads, finance follows*). These procedures do not exist in a vacuum. They were introduced as a response to the NPL problem within the Chinese financial system in the late 1990s and served well to prevent a new built-up of NPLs in the formal financial sectors. The problem is that they have not been fundamentally revised since and have most likely outlived their usefulness.

The need for a shadow banking sector is not only driven by the demand side. It is not just that deficit-spending units need to source financial capital outside of the regulated banking sector. Surplus-spending units, those who hold more financial capital than they would like to consume, are faced with another challenge within the financial system. They lack adequate investment opportunities within formal financial sectors. Deposit rates of commercial banks in China are relatively moderate. At times they are said to be below annual inflation. This means that in real terms, surplus-spending units loose wealth by depositing their money with commercial banks. The Chinese financial markets provide an opportunity to make equity investments, but as Chapter Three has demonstrated they suffer from high volatility. There therefore exists an abundance of financial capital waiting to be invested for a higher return than bank deposits and a lower risk than local financial markets. Investments in financial markets abroad is also not feasible, because of capital export regulation. In the absence of adequate investment opportunities and with a never ceasing supply of deficit-spending units, the shadow banking sector steps in and helps with the intermediation. It exists, because it has to provide a valuable function to the financial system It is important for us to understand this, because it means that we cannot pass a normative judgement on the whole sector. The regulatory environment and internal procedures of commercial banks lay the foundation for shadow banking. It is needed by those, who hold capital as much as by those, who are looking to borrow it. As long as the regulatory environment in China does not change, there will always be a need for a large additional financial sector to provide functions to the economy.

Understanding the need for a shadow banking sector is the first step to understanding the functions it provides. This study has identified four distinct functions: *access to finance*, *alternative to bank deposits*, *services to the formal financial sector* and *financial services to* *local governments*. The two most important functions are access to finance and alternatives to bank deposits. The shadow banking sector is able to attract the funds from surplus-saving units and provide them as loans to deficit-spending units. The bright reader will notice immediately that by providing these two services, the sector is engaged in the most important process of the financial system: credit intermediation.

Within the shadow banking sector credit intermediation takes on various forms. The simplest form is informal finance. Here the borrower does not receive a loan from a hard institution but from friends, family or other private individuals. From the data gathered through interviews and the survey, it became apparent that this is still widespread in China's economy. In Beijing and Nanjing, entrepreneurs often use informal finance. In Nanjing, interviewees often described a romanticised version of shadow banking, where individuals lend money to others at favourable rates. Sometimes these loans were given on an understanding, that should the lender require a loan at a later date, he too would be able to borrow money from the borrower at favourable terms. Our survey in Beijing did not support this view. It discovered that individuals borrowed money from friends, family and other lenders, because they had to, not because they wanted to. This is in stark contrast to some of the loans provided by formal shadow banks. Formal shadow banks describe legally registered business entities that are engaging in credit intermediation. Our study here discovered that these institutions provided a sought after service for which customers were willing to pay a premium. Deficit-spending units with financing needs used loans provided by formal shadow banks and often combined them with other loans.

In addition to the structural reasons, which create the general necessity for credit intermediation outside of the formal banking sector, this study identified another key reason: flexibility. Shadow banks are more flexible than commercial banks. This flexibility extends to all aspects of the credit intermediation. Surplus-saving units do not have to commit their capital long-term, like they would have to with classic equity investments. They can invest their money in a P2P product today and in another shadow bank next week. They can lend the funds at a flexible interest rate, which is determined between creditor and debtor. It is not subject to the regulatory rigidity of an interest rate set by a central authority. For deficit spending units, the terms of the loan and the form of collateral is far more flexible than with a commercial bank. They can pledge their personal possessions as collateral and borrow the funds for hours, days, weeks or years. For this flexibility, the debtor is willing to pay a premium. He does not mind the higher interest rate, because that is the price he has to pay for more flexibility.

The third function identified by this study are services to the formal financial sectors. The function covers many different aspects. For example, through credit guarantee and trust companies, commercial banks can engage in off-balance sheet lending. They can move loans off their balance sheets. These complex products of financial engineering also allow banks to arrange for loans, which have a higher interest rate than a bank would be allowed to charge. This allows them to creatively use regulation and risk-adjust interest rates for certain borrowers. It also allows banks to offer more diverse investment products to surplus-saving units and attract their deposits or deposit-like investments. Lastly, in some cases their regulatory arbitrage also allows them to hide problematic assets in their investment products. These findings highlight that formal financial sector also directly benefits from the shadow banking sector's existence. It benefits directly from engaging in credit intermediation outside of the regulated banking sector. It allows them to absorb more financial capital from surplus-spending units and extend more loans to deficit-spending units. The precise linkages between the different financial sectors was not the main scope of this study. It is an interesting function, which undoubtedly warrants further research.

The last function provided by the shadow banking sector are services to local governments. This study in particular highlighted two areas, in which the shadow banking sector is providing services to local governments. The first are the now defunct local government financing vehicles (LGFV). These were largely used to fund the Chinese governments stimulus package following the global financial crisis. They allowed local governments to accumulate debt, even though this is generally prohibited by law. The second area was an interesting conclusion from our analysis in Nanjing. Local governments use different institutions within the sector to steer local development. In the case of Nanjing these were mainly trust companies and VC firms. It seemed as if local governments were painfully aware of the shortcomings of commercial banks in POE finance and therefore sought to stimulate their growth by other means.

Before we discus what these four functions have in common and discus if they are all merely aspects of the same phenomenon, it is important to engage critically with the terminology proposed by existing literature: the term 'shadow banking'. The term shadow banking is hardly self-explanatory. When we discus the concept amongst scholars, there will be little disagreement about what it is and what it does. The informed academic will have been exposed to debates surrounding the threats and opportunities emanating from it. When speaking to average and uninitiated citizen on the street, they might have a totally different understanding of a shadow bank is or what it does. In the Chinese context and throughout my fieldwork, people often took it to mean informal finance. More often than not, the term shadow bank(影子银行) was understood as quasi-legal or illegal finance. This included interviewees working within the sector. Interviewee NJ-14-12-004 for example, an executive of a microloan company, took offence to the term, when I associated his institution with the wider sector. He highlighted throughout the interview that his operations were legal and followed the letter of the law. My frequent references to his institution as a shadow bank lead him to believe that I did not understand, that his business was legal and by no means a front for a loan shark, for *gaolidai* (高利贷).

For him and others, the term *shadow banking* included a normative judgement of his institution and ultimately his person. Other entrepreneurs and people working in the sector had similar views and shared them with me. They often took the term to mean quasi-legal or illegal finance. For them it was not a non-normative term for any bank-like activity, which takes place outside the formal banking sector. In subsequent interviews, I adopted the term non-bank financial institution (非银行) in order to avoid confusion. So despite there being numerous definition of shadow banking, the term causes confusion amongst some. The PBRC may base its use of the term on widely accepted international definitions, but the general public does not understand it that way. The term shadow banking is prone to result in confusion and therefore might not be the ideal way to describe the sector, which supplements the rest of the financial system.

The term is also ill-fitted, because it creates further confusion by using an existing dichotomy, which is widely used in academic literature and everyday vocabulary. As Chapter One highlights, virtually all literature on financial systems uses the binary distinction of banks and financial markets. If we say that there are shadow banks, does logic not imply that there ought to be shadow markets too? If there are, why did this study not cover them? There is anecdotal evidence to suggest, that in the interwar period unregulated equity markets existed in Shanghai. There the unregulated sale of equity and debt often resulted in highly speculative gambling and fraud. Today, the closest thing to a shadow financial market, i.e. market-like financial activity outside the regulated financial markets, is the very recent phenomenon of crypto currencies. These are traded on market places, which bear resemblance to financial markets, but with no regulatory oversight. At the time, when the fieldwork for this study was conducted, block chain technology and crypto currency were in their infant stages and therefore there was no attempt made to include them in the research design. They do raise an interesting question of whether there are shadow financial markets in addition to shadow banks. As it stands today, the definition of shadow banking also includes activity, which involves the financial markets. One of the three core functions of the shadow banking sector analysed in this study is the services it provides to banks, often as a tool to issue financial products with links to the financial markets. As the section on interbank shadow banking highlights, much of the financial markets are also closely connect to the shadow banking sector. It therefore begets the question of whether it is wise to include the term 'banking', when discussing '*credit intermediation involving entities and activities (fully or partly) outside the regular banking system' (*Financial Stability Board, 2014:1).

As it is my desire to add to our understanding of the design of financial systems in which a third sector supplements the work of the formal banking sector and the financial markets, I propose to call it exactly that: *the third financial sector*. This term highlights that it is a financial sector in its outright, which sits somewhere between the banking sector and the financial markets. It includes elements of both. Rather than seeing financial systems design as a two-dimensional concept, we should include the third financial sector. It also demonstrates that this sector includes any and all institutions, which do not belong to its other two counterparts. In order to enhance our understanding of how it supplements the work of financial systems as a whole, it is important that the use this study's findings to highlight how interwoven it is with the others in the case of China.

The key finding of this study were the four functions of the third financial sector. These functions have one thing in common. They all supplement functions of the banking sector and the financial markets. Chapter four presenting the key hypothesis of this study: the supplemented financial system. After conducting empirical fieldwork, we can rightly say it is more than a hypothesis. It adequately describes the nature and character of the Chinese financial system. The diagram below has been adapted with the findings of our study.

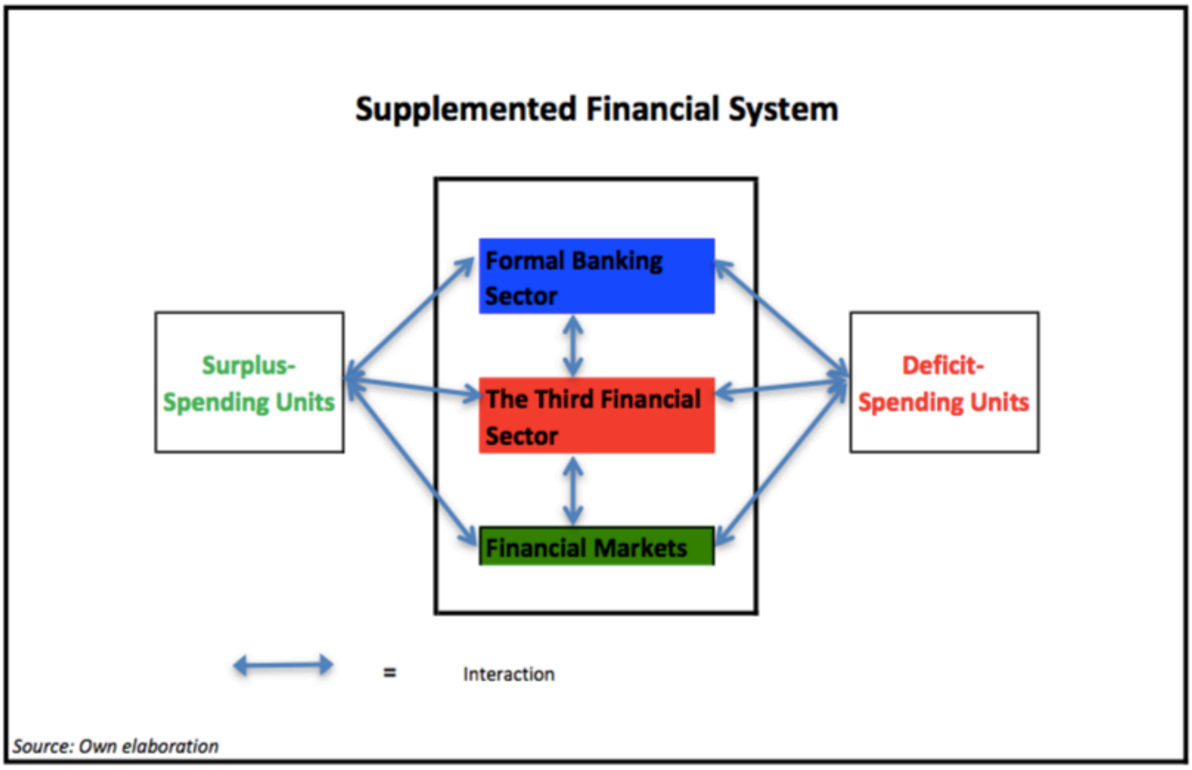

Diagram 9 - The Third Sector in the Supplemented Financial System

All functions provided by the third financial sector are supplementary, because they do not seek to replace any of the other two financial sectors. Credit intermediation takes place in the third financial sector. Deficit-spending units seek loans from it and surplus-spending units 'deposit' their hard-earned financial capital in it. However, both still make heavy use of the formal banking sector. As entrepreneurs in Beijing and Nanjing both confirmed, bank loans are still the most desirable form of external finance. Households in China still deposit most of their income in their bank accounts or use bank-issued mortgages to buy residential properties. The third financial sector does not seek to replace the banking sector or the financial markets; it merely supplements some of their functions. Commercial banks in China still reign supreme. They are still at the core of the vast majority of credit intermediation as well as the other services provided by the financial system.

Chapter One provided an outline and detailed discussion of the functions provided by a working financial system[180]. The most crucial function is that of credit intermediation. A functioning financial system mobilises highly liquid assets, i.e. savings of surplus-spending units, and converts them into less liquid assets, e.g. loans or equity investments. This process is at the core of any financial system. It ensures that financial capital flows from the economic units, who have accumulated more than they can consume, to the ones, who need to consume more than they can accumulate alone. The financial system should also provide a payment mechanism, which allows payments across time and space. They provide other financial services, such as insurances and pensions. Lastly, a well-functioning financial system also provides financial vehicles, which enable the disaggregation and trade of financial risk. These are the core functions every financial system has to provide.

Looking at these core functions of a financial system, we can relate them back to the four functions provided by the shadow banking sector. We concluded at the beginning, that the functions *access to finance* and *alternatives to bank deposits* mean that the third financial sector is deeply involved in credit intermediation. Given the size of the entire sector vis-à-vis the size of the banking sector, we can argue that this involvement is merely supplementary. The the third financial sector cannot replace the credit intermediation of the formal banking sector. It is a by-product of the shortcomings and inflexibility of most of China's commercial banks. If commercial banks were able to fulfil the functions assigned to them in financial

[180] For a detailed overview see Buckle and Thompson (1998) or Farrel et al (2006).

systems design theory, enterprises would have less incentive to seek credit intermediation outside of the formal banking sector. The third sector would still exist, because there will always be deficit-spending units, who are unable to get formal bank loans. Its size and its importance however would be immensely reduced. The third financial sector has also been able to provide financial vehicles, which allow for the disaggregation and trade of risks. WMPs and other financial products have fulfilled this functions, while being outside of the formal financial sector. For example, a trust company product is not issued by a bank but is also not a product, which falls under the regulatory framework, which governs financial markets. Despite to fully belonging to the formal financial sectors, it surely does does not exist in a vacuum. These products are issued by or at least in close cooperation with the formal financial sectors. The third financial sector could not create these financial vehicles fully outside the formal financial system. There is one function of a financial system, which the third financial sector has not supplemented. The provision of a payment mechanism is still a task of the formal financial sector.

The third financial sector exists, because it is needed by the financial system. As this study has demonstrated, China relies heavily on an additional sector to supplement the functions of the financial system. This was at the core of our hypothesis. China presents a case, where banks find themselves unable to fulfil all their assigned functions to the economy. In this situation a third financial sector develops to take on the functions, which banks do not provide. Its existence is testament to its need. Its existence also absolves its negative externalities. The third sector reacts to the shortcomings of the formal banking sector and the financial markets. The only way to reduce the importance the the third sector is by reintegrating its functions back into the latter two.

Appendix

Appendix I – Semi-structured Interview Questions for Business Executives and Entrepreneurs

Q1: What are the three main obstacles in receiving a bank loan?

Q2: Is the financial sector in China too heavily regulated when it comes to private enterprise finance?

Q3: Does regulation affect access of private enterprises to formal bank loans?

Q4: What are the three main obstacles in receiving a bank loan?

Q5: What are the usual loan approval times for bank loans?

Q6: Do you think these days it is easier or hard to get a bank loan?

Q7: Have you heard about initiatives in Jiangsu to accept non-real estate collateral for loans? Do you think that system could work elsewhere?

Q8: Does China need a shadow-banking sector today? Can we identify three main reasons?

Q9: Is the shadow banking sector better at responding to your business requirements than the formal banking sector? If you had to name three main reasons of why that is the case, what would they be?

Q10: Can new institutions, e.g. P2P finance, replace the old actors in unregulated finance?

Q11: How important are interpersonal relationships (Guanxi) for securing a loan?

Q12: Does the banking sector need more competition? If yes, does China need more foreign banks or domestic banks as competitors for SOCBs?

Q13: Thinking 20 Years ahead, do you think China will still need a shadow banking sector?

Q14: When you seek a loan from the unregulated financial sector, how do you do that?

Q15: Which financial service provider, e.g. banks, financing companies, P2P or interpersonal loans, do you use? Which ones do you feel most comfortable with?

Q16: How high is the interest rate on loans your received from the unregulated financial sector?

Q17: Is the shadow banking sector better at responding to your business requirements than the formal banking sector? If so, why do you think that is?

Q18: Do you think higher funding costs make innovation in China more difficult?

Q19: Have you had a loan to a bank rejected in the past? If yes, what did you do afterwards?

Q20: Has a shortage of lines of credit ever adversely affected your business? What did you do to overcome this?

Q21: Have you yourself invested in any shadow-banking institutions?

Q22. Is there anything we have not covered but you feel is important when we talk about shadow banking in China?

Appendix II – Semi-structured Interview Questions for Finance Professionals

Q1:Is the financial sector in China too heavily regulated when it comes to private enterprise finance?

Q2: Does regulation affect access of private enterprises to formal bank loans?

Q3: Does the banking sector need more competition? If yes, does China need more foreign banks or domestic banks as competitors for SOCBs?

Q4: What does your institution accept as collateral?

Q5: Have you heard about initiatives in Jiangsu to accept non-real estate collateral for loans? Do you think that system could work elsewhere?

Q6: Does China need a shadow-banking sector today?

Q7: Can new institutions, e.g. P2P finance, replace the old actors in unregulated finance?

Q8: Will China still need a shadow-banking sector in 20 years?

Q9: Do you think for China, the shadow banking sector is a good or a bad thing?

Q10: Are decisions in SOCBs are made on purely economic grounds?

Q11: If banks were allowed to make decisions more freely, would that limit the shadow-banking sector?

Q12: How does the loan approval procedure look like and how long does it take from application to approval?

Q13: Do your internal policies make your work more difficult?

Q14: Do you feel incentivized to give loans to a certain type of business? If so, which business is that?

Appendix III – Semi-structured Interview Questions for Incubators

Q1: Does regulation affect access of private enterprises to formal bank loans?

Q2: Is the financial sector in China too heavily regulated when it comes to private enterprise finance?

Q3: How does the loan approval procedure look like and how long does it take from application to approval?

Q4: If banks were allowed to make decisions more freely, would that limit the shadow-banking sector?

Q5: I have heard about initiatives in Jiangsu to accept non-real estate collateral for loans? Do you think that system could work elsewhere?

Q6: Can new institutions, e.g. P2P finance, replace the old actors in unregulated finance?

Q7: In your experience, how difficult is it for start-up companies to get access to formal lines of credit?

Q8: How difficult is it for companies at the growth stage to get a bank loan?

Q9: Does the banking sector need more competition? If yes, does China need more foreign banks or domestic banks as competitors for SOCBs?

Q10: Does China need a shadow-banking sector today?

Q11: Will China still need a shadow-banking sector in 20 years?

Q12: Do you think for China, the shadow banking sector is a good or a bad thing?

Q13. Is there anything we have not covered but you feel is important when we talk about shadow banking in China?

Appendix IV – Survey Question Translation

企业家调查问卷

1. 您的年龄
   a.20 岁以下
   b.20-29
   c. 30-39
   d. 40 以上
   c. 不愿回答
2. 您的性别
   a. 男
   b. 女
   c. 不愿回答
3. 您的户口所在地？

4. 您的公司所在地？

5. 您的教育水平？
   a. 小学
   b. 高中
   c. 大学
   d. 研究生（硕士或者博士）
6. 您所在的行业？
   a. 食品
   b. 纺织品
   c. 服装
   d. 非金属矿物产品
   e. 金属产品
   f. 机器设备
   g. 机动车
   h. 其他制造业
   i. 建筑
   j. 批发
   k. 零售
   l. 酒店餐馆
   m. 基本金属
   n. 化学品
   o. 电子通信设备
   p. IT
   q. 塑料和橡胶
   r. 机动车保养服务
   s. 交通
7. 您的员工人数？
   a. 无（自营）

b. 1-4
c. 5-9
d. 20-99
e. 100+

8. 您的公司是否拥有 10%以上的外资所有权？
   a. 有
   b. 没有
9. 过去 12 个月，您的营业额是多少？
   a. 少于 10，000 元
   b. 10,000 – 100,0000 RMB
   c. 100,000 - 999,000RMB
   d. 大于 1,000,000 RMB
10. 您的公司已运行了多久？
11. 创业初期，您使用的融资选择？
   a. 内部资金或留存利润
   b. 股东投资或发行新股
   c. 国有银行贷款
      i. 中国农业银行
      ii. 中国银行
      iii. 中国建设银行
      iv. 中国工商银行
   d. 股份制商业银行贷款
   e. 其他中国银行贷款，银行名称：
   f. 国际银行，银行名称：
   g. 非银行金融机构贷款
      i. 正式
         1. P2P 金融
         2. 小额贷款
         3. 风险投资
         4. 私募股权
         5. 其他：
      ii. 非正式
         1. 朋友
         2. 亲戚
         3. 合会贷款
         4. 其他公司
         5. 其他：
   h. 商业信用购买
12. 过去的 12 月中，您是否使用以下融资方式，如果有，请指明各项融资所占的比例？
   i. 内部资金或留存利润
   j. 股东投资或发行新股
   k. 国有银行贷款
      v. 中国农业银行
      vi. 中国银行

vii. 中国建设银行
viii. 中国工商银行
l. 股份制商业银行贷款
m. 其他中国银行贷款，银行名称：
n. 国际银行，银行名称：
o. 非银行金融机构贷款
iii. 正式
6. P2P 金融
7. 小额贷款
8. 风险投资
9. 私募股权
10. 其他：
iv. 非正式
6. 朋友
7. 亲戚
8. 其他公司
9. 其他：
p. 商业信用购买

13. 您如何评价正式金融机构的服务？
a. 6 分
b. 5 分
c. 4 分
d. 3 分
e. 2 分
f. 1 分

14. 您如何评价非正式金融机构的服务？
a. 6 分
b. 5 分
c. 4 分
d. 3 分
e. 2 分
f. 1 分

15. 您是否获得以下银行贷款？
a. 中国农业银行
b. 中国银行
c. 中国建设银行
d. 中国工商银行
e. 其他：

16. 请将以下融资方式根据个人偏好排序：
a. 内部资金或留存利润
b. 股东投资或发行新股
c. P2P 金融
d. 小额贷款

e. 风险投资
f. 私募股权
g. 向朋友借款
h. 向亲戚借款
i. 向其他公司借款
j. 向放款人贷款
k. 商业信用购买
l. 其他：

17. 请将以下融资方式按照获取的便利程度排序：
    a. 内部资金或留存利润
    l. 股东投资或发行新股
    m. P2P 金融
    n. 小额贷款
    o. 风险投资
    p. 私募股权
    q. 向朋友借款
    r. 向亲戚借款
    s. 向其他公司借款
    t. 向放款公司贷款
    u. 商业信用购买
    l. 其他：

18. 获取融资的便利性是否对您的公司发展有影响呢？
    a. 5 分
    b. 4 分
    c. 3 分
    d. 2 分
    e. 1 分

Appendix V – Translation Participant Information Sheet

参与调查信息表

REC Reference Number: REP/13/14-58

您将会获得一份该信息表

课题
中国的影子银行对金融体系的补充作用?

诚挚邀请
本人诚挚地邀请您参与这一课题研究，分享您与中国影子银行机构的经历。如您所知，无论是非正式贷款人，还是如 P2P 金融之类的正式机构，影子银行机构一直是中国经济增长的重要原因，因此更好地了解它们在中国金融系统的作用，尤为重要。

研究目的
对非正式金融系统的宏观经济学研究，尤其是微观经济学认知方面的文献作出贡献。

为什么邀请我?
邀请您参加研究，是因为您能够提供重要的行业信息，也意味着您具有以下身份:

- 企业家
- 学者
- 金融专家
- 政府官员
- 金融从业人士

我必须参加吗?
是否参与调查纯属自愿。请阅读该信息表，如果您有任何疑问，请联系研究小组，在解答完您所有的疑问之后，再参加调查。

参加调查对我会有怎样的影响？
如果您决定参加调查，您可以保留本信息表。您出于自愿为我们提供信息，您也可以在研究中任何时候选择退出。如果您不便提供信息，请勿勉强。

激励
参与此调查无薪资报酬。

风险
参与此调查无明显的风险，只是需要占用您一小时左右的时间。在调查过程中，您可能发现有些问题比较具有挑战性，一旦发生这样的小概率事件，调查可以随时终止。

保密条款
您在调查中的发言将被严格保密，直至研究结束。您参与调查是完全出于自愿。如果您改变主意，在 2016 年秋研究发表之前，您可以无理由地停止参与并撤回您的数据。

本研究可以选择匿名，请说明您希望表明身份或是匿名。如果您同意表明身份，作者可能会联系贵公司进行案例分析。那时您也可选择不再表明身份，您的数据也会被匿名。
如果您希望保持匿名，所有其他的分析数据都将会被匿名。在报告调查结果时，我将不会透露参与者姓名及单位。您与这些数据将不会有任何关联。调查中收集到的数据将适用于《英国数据保护法案 1998》，并将被收藏在加密的电脑文件中以及伦敦大学国王学院的档案柜。除本人之外，其他人不会接触到这些数据；材料将会用假名进行匿名保护。参与者将不能通过数据识别。您可以在 2016 年秋研究发表前的任何时候撤消您的数据。所有音频记录将在誊写后被删除。如果你在 2016 年秋研究发表前要求撤消数据，所有的记录将被清除。研究收集的数据可以被用作后续研究和发表，无需再授权。

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研究结果将会如何?

研究收集的数据将会被作者用于最终的研究项目和可能的后续项目及发表。他将提交该研究，作为在“刘氏中国研究院”中国学研究生学位研究的一部分。如果您想要电子版终稿，可在调查结束时向研究人员提供您的电子邮箱。您也可以获得后期的出版作品。

更多详情

如果您对于该研究有任何疑问，或者需要获得更多信息，请通过以下方式联系我。

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如果我有进一步的问题，或者出了差错?

如果该研究对您造成损害，或者您想投诉该研究行为，您可以通过以下方式联系伦敦大学国王学院，获取进一步的建议和信息。

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感谢您阅读这份信息表以及考虑参加该研究。

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